The Government's Response to Sir Michael Pitt's Review of the summer 2007 Floods

Final Progress Report

27 January 2012



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Introduction

Sir Michael Pitt's review of the summer 2007 floods

Following the widespread and serious flooding in England during June and July 2007, Sir Michael Pitt conducted an independent review of the way the events were managed. Sir Michael published the interim conclusions of the Review in December 2007: the final report - *The Pitt Review: Lessons learned from the 2007 floods* - was published in June 2008.

The final report contained a detailed assessment of what happened and what we might do differently. It put forward 92 recommendations covering prediction and warning of flooding, prevention, emergency management, resilience and recovery. Many of the recommendations were far-reaching and called for a radical reshaping of our flood risk management practice.

Alongside the final report, Sir Michael's team published an implementation and delivery guide, setting out who the team felt was responsible for ensuring implementation of each recommendation and the suggested timescale for doing so.

Government response

A government response was published in December 2008 and the Ministers in post at the time accepted all of the Report's recommendations and gave an undertaking to implement them in line with the delivery guide. Defra's Structural Reform Plan reinforced the Coalition Agreement commitment to ensure that the remaining Pitt recommendations were implemented.

The response set out an implementation plan for each recommendation and work on delivery has been the responsibility of a number of Government Departments and Agencies, with Defra providing overall coordination. A cabinet sub-committee, with a remit to improve the country's ability to deal with flooding and implement the recommendations of the Pitt Review, was established by the previous Government and progress was reported to it. Having overseen the initial implementation of the Pitt recommendations, the sub-committee has since been disbanded.

Progress reports

Since the response was published, two progress reports have been published, in June and December 2009. These progress reports showed what action had been taken to ensure we are better placed to predict, prepare for, deal with and recover from the unique challenges posed by flooding events. This report is a final assessment of progress.

Key progress and developments since the last progress report of December 2009 are summarised below.

• The **Flood and Water Management Bill** became an Act in 2010, providing for better, more comprehensive management of flood risk for people, homes

and businesses, helps safeguard community groups from unaffordable rises in surface water drainage charges and protects water supplies to the consumer.

- Publication, in July 2011, of the National Flood and Coastal Erosion Risk Management Strategy for England and statutory guidance on co-operation and requesting information. The strategy sets out a statutory framework that will help communities, the public sector and other organisations to work together to manage flood and coastal erosion risk. It will support local decision-making and engagement in flood and coastal erosion risk management, making sure that risks are managed in a co-ordinated way across catchments and along each stretch of coast.
- The **National Flood Emergency Framework** was published in July 2010. This provides guidance and advice for councils and others on planning for and responding to floods. The Framework will be a 'one stop shop' reference point on flood planning and will be updated on a regular basis.
- The Water Industry (Schemes for Adoption of Private sewers) Regulations 2011 transferred private sewers that connect to the public sewerage system to the water and sewerage on 1 October 2011. This transfer will provide customers with the assurance of having a regulated company responsible for maintaining and repairing the sewerage system serving their property, which works to minimum standards of service, which is overseen by Ofwat, and on whom they can call if problems arise.
- **Exercise Watermark** was successfully run in March 2011. The final report was published in October 2011.

Some recommendations are no longer being taken forward, or not as originally envisaged by the Review;

• Recommendation 28: the forthcoming flooding legislation should be a single unifying Act that addresses all sources of flooding, clarifies responsibilities and facilitates flood risk management.

Due to parliamentary time constraints the Flood and Water Management Act focussed on the immediate legislative requirements. It is intended to consolidate legislation in due course, probably once further water legislation is passed. In the meantime work is continuing on consolidation of some aspects of legislation (e.g. reservoirs) subject to availability of counsel's time. Defra's Departmental Plan makes clear our commitment to complete this consolidation work by December 2014.

• Recommendation 59; The Risk and Regulation Advisory Council should explore how the public can improve their understanding of community risks, including those associated with flooding, and that the Government should then implement the findings as appropriate.

The Risk and Regulation Advisory Council published its review "Rising Levels? Public awareness and understanding of risks from flooding" in

December 2009, in which they made 8 recommendations. All but one of these have been implemented; BIS started to implement recommendation 6 (requesting Government support for research to further develop the Risk and Regulation Advisory Council's ideas on public risk and responsibility), but the change in administration has brought this to a hold and it has not been picked up again because of reduced resources. The seven other recommendations have been implemented by Defra, the Environment Agency and Lead Local Flood Authorities.

• Recommendation 63; flood risk should be made part of the mandatory search requirements when people buy properties, and form part of Home Information Packs (HIPs).

Following the abolition of HIPs (a Coalition Agreement commitment), there is no longer a legal requirement for an investigation of flood risks in the home buying process. However it is likely that where a home is at risk of flooding, prospective purchasers or their advisers will commission an environmental search which addresses flood risk, in line with Law Society guidance to solicitors, and make an informed decision as to whether to proceed.

- Recommendation 87: The Government should establish a Cabinet Committee with a remit to improve the country's ability to deal with flooding and implement the recommendations of this Review; and
- Recommendation 88: The Government should establish a National Resilience Forum to facilitate national level multi-agency planning for flooding and other emergencies

The governance arrangements for national security and resilience have been reviewed, including through the National Security Strategy and the Strategic Defence and Security Review (SDSR) published on 18 and 19 October 2010 respectively; they do not include a Committee devoted to flooding or a National Resilience Forum.

However, the NSC sub-committee on threats, hazards, resilience and contingencies (THRC) does cover flooding which is recognised in the National Security Strategy as a high risk for the longer term; and there is a number of forums in which government and other stakeholders with an interest in resilience can meet and this will include specifically an infrastructure security and resilience advisory council, announced in the SDSR, which will significantly enhance cooperation between public sector bodies and private sector providers of national infrastructure (for example the water industry). Flood and coastal erosion risk management may also be considered by the Home Affairs Committee.

Status of Pitt Recommendations

Recommendation Number	Total
Implemented 7, 8, 12, 14, 15, 16, 17, 18, 23, 24, 25, 26, 29, 31,32, 35, 36, 40, 43, 46, 47, 49, 57, 62, 64, 67, 69, 71, 72, 73, 74, 75, 76, 79, 82, 83, 84, 85, 86, 87, 88, 90, 91.	43
Implemented: Ongoing work continuing 1, 2, 3, 4, 5, 6, 9, 13, 19, 22, 27, 30, 33, 34, 37, 38, 39, 41, 42, 44, 45, 48, 50, 51, 52, 53, 54, 55, 56, 60, 61, 65, 66, 68, 70, 77, 78, 80, 81, 92.	40
Ongoing: On track for completion by particular date 10, 11, 20, 21, 28, 58	6
Not completely implemented. 59	1
Not now taken forward 63	1
Not for Government 89	1
Total	92

Progress against all Pitt Recommendations

Knowing where and when it will flood

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
1	Given the predicted increase in the range of future extremes of weather, the Government should give priority to both adaptation and mitigation in its programmes to help society cope with climate change.	The Government is continuing to give priority to both mitigation and adaptation policies. On mitigation, the Government responded to the Committee on Climate Change 3 rd Annual Progress Report in October and will publish in December the Carbon Plan, setting out its vision for achieving the UK's medium and long term mitigation commitments to 2050. On adaptation to climate change, the Government will be producing the first UK Climate Change Risk Assessment in January 2012. This will form the evidence base for the National Adaptation Programme, to be produced in 2013.	Implemented: Ongoing work continuing.
2	The Environment Agency should progressively take on a national overview of all flood risk, including surface water and groundwater flood risk, with immediate effect.	 The Environment Agency (EA) has made good progress in taking on a national strategic overview covering not just all sources of flood risk, including surface water and groundwater, but also coastal erosion: During 2009 and 2010, the EA supported Government in developing an updated legislative framework to underpin this overview role, through the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010. Under the Flood and Water Management Act, the EA produced with Defra a National Flood and Coastal Erosion Risk 	Implemented: Ongoing work continuing.

Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	Management Strategy for England, and guidance on cooperation and requesting information. The National Strategy and the guidance and are now statutory documents. The EA has also determined the approach to reporting to Government on flood and coastal erosion risk management, including implementation of the National Strategy. Transitional Regional Flood and Coastal Committees (RFCCs) replaced the Regional Flood Defence Committees (RFDCs) on 1 April, 2011 and became RFCCs by 1 October 2011.	
	• The EA has produced guidance for Lead Local Flood Authorities (LLFAs) under the Flood Risk Regulations on how to undertake Preliminary Flood Risk Assessments (PFRAs) for local flood risks from ordinary watercourses, surface runoff and groundwater. The EA has supported Government in developing criteria for the determination of Flood Risk Areas for the purposes of the Regulations and applied these to their national surface water flood maps and receptor dataset to highlight indicative Flood Risk Areas for LLFAs. The EA has received PFRAs from all of the LLFAs in England and Wales and is now reviewing these assessments in accordance with the Regulations, prior to reporting to the EU Commission in 2012.	
	 The EA has produced a national analysis of surface water flooding and provided data on groundwater and coastal erosion to LLFAs. The EA has worked with LLFAs to support them in their new roles by promoting a catchment and coastal cell approach 	

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		and an understanding of the measures and priorities which need to be considered to manage local flood and coastal erosion risk.	
		 The EA has produced 77 Catchment Flood Management Plans covering England and Wales and Local Authorities have completed most of the second generation of 22 Shoreline Management Plans covering the coasts of England and Wales. These strategic plans describe the flood and coastal erosion risks by: outlining the sources, pathways and receptors of risk across catchments and the coastline, exploring opportunities to avoid and manage future risks, taking account of climate change, land use change and development, and 	
3	The Met Office should continue to improve its forecasting and predicting methods to a level which	Flood Risk Regulations. Since 2009 the Met Office has continued to focus significant resource on improving its forecasts of severe weather to meet the needs of emergency responders.	Implemented: Ongoing work
	meets the needs of emergency responders.	Three key areas of development are outlined below; full integration of these improvements into operational Met Office forecasts and warnings will follow the super-computer upgrade in 2012. A 1.5km grid length weather forecasting model was implemented in trial mode as part of the Met Office operational forecasting suite in	continuing.

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	summer 2009. Work continues to tune this model with the expectation that it will become the primary source of short range weather forecasting guidance for the UK during 2012 providing improved forecasts of severe weather. Forecasts from this model are made available to the Met Office Chief Forecaster and the joint Environment Agency Met Office Flood Forecasting Centre for information and, on occasion, have been used as primary input for the issue of heavy rainfall warnings. The 1.5km system performed particularly well during the 2009 Cockermouth Flood. A weakness of the single high-resolution forecasting model that was recognised in the response to the Pitt Review was that the location and intensity of rainfall can be highly uncertain in some circumstances. Work has progressed in the Met Office towards implementation of a capability to assess and better predict this uncertainty through running an ensemble of slightly perturbed forecasts. Trials of such a system were successfully completed in 2010/11.	
	Since 2009, when it was expected that this could not be achieved without accelerated enhancement of the supercomputer power, the focus has changed towards creating a slightly lower resolution capability. Comparison of the two resolutions has confirmed that this will be a satisfactory solution. Implementation now awaits delivery of the Met Office supercomputer upgrade scheduled for mid-2012. For very short range forecasts up to three hours ahead, current forecasts and warnings are based on extrapolation of rain systems	

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		observed by radar. This simple approach has many limitations. Work has been underway since 2009 to develop an improved approach based on application of the Met Office high resolution model. The key to this is to adjust the model to fit the detailed radar observations. Trials of the benefit of the incorporation of Doppler radar winds into the UK forecast model show a gain of about one hour's predictability over current model output in these very short range forecasts. Routine comparison with the existing extrapolation approach will commence following delivery of the supercomputer upgrade in 2012, when an hourly very short range forecast update will be implemented in trial mode.	
4	The Environment Agency should further develop its tools and techniques for predicting and modelling river flooding, taking account of extreme and multiple events and depths and velocities of water.	 The Environment Agency (EA) has continued to develop tools and techniques for predicting and modelling river flooding by: Completing a review of its flood modelling packages and providing a data set against which modelling packages can be evaluated in the future. Developing a tool for mapping flooding from all sources that combines information on flooding from different sources into a single map that shows the probability of flooding. Demonstrating that it is feasible to assess the risk of widespread flooding and the likelihood of simultaneous extreme flooding at different locations. Working to establish flood depth and velocity information to meet the needs of the Flood Risk Regulations. 	Implemented: Ongoing work continuing.

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5	The Environment Agency should work with partners to urgently take forward work to develop tools and techniques to model surface water flooding.	 The Environment Agency (EA) procured a licence to share surface water flooding maps prepared by a third party, known as Areas Susceptible to Surface Water Flooding (AStSWF), with Local Resilience Forums (LRFs) and Local Authorities (LAs). These maps were shared with LAs in August 2008 and updated versions were sent in July 2009 as part of a national exercise to provide LRFs and LAs with an indication of areas that may be susceptible to surface water flooding. The EA has since developed the Flood Map for Surface Water 	Implemented: Ongoing work continuing.
		(FMfSW), which includes a number of changes to the original model. For example, considering more storm events, showing the impact of buildings and considering the influence of the local sewer system.	
		 In a relatively small number of locations AStSWF could be more representative of actual surface water flood risks than the Flood Map for Surface Water (FMfSW). Both datasets were made available to Local Planning Authorities, LLFAs and LRFs in November 2010. LLFAs have been asked to identify their 'locally agreed surface water' information, or most locally appropriate surface water data set, as part of their Preliminary Flood Risk Assessment under the Flood Risk Regulations. 	
		• The EA has worked with local authorities and other partners on a science project to develop a framework and tools for local flood risk assessment. This project aims to provide a common method for local flood risk assessments that is flexible and practical. Prototype software tools have been developed to	

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		demonstrate how this method can be implemented for operational purposes. The project findings will be made available in early 2012.	
6	The Environment Agency and the Met Office should work together, through a joint centre, to improve their technical capability to forecast, model and warn against all sources of flooding.	 The Environment Agency (EA) and Met Office established the Flood Forecasting Centre (FFC) in April 2009, and it has successfully provided a 24/7 flood forecasting service to customers, stakeholders in national and local Government and Civil Contingencies Act Category 1 and 2 responders since then. After a successful pilot period in London, the FFC now operates from a permanent base within the Met Office headquarters in Exeter. The FFC provides longer lead time flood forecasts for responders than was possible previously and has already played a valuable role during severe weather and floods, most notably proving its value during the Cumbria floods in 2009. The FFC has proved to be a catalyst for improving flood forecasting and warning services provided by the EA, Met Office and the FFC. Areas for improvement include accurately predicting when and where surface water flooding is going to happen such as in Cornwall in 2010. The FFC is responding by investing in the skills and capabilities of its staff and developing skilled 'Hydrometeorologists'. This approach combines the expertise of EA and Met Office staff. 	Implemented: Ongoing work continuing.

Reducing the risk of flooding and its impact

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
7	There should be a presumption against building in high flood risk areas, in accordance with PPS25, including giving consideration to all sources of flood risk, and ensuring that developers make a full contribution to the costs both of building and maintaining any necessary defences.	Since the 2009 update report stating this recommendation was implemented the UK Government announced a review of national planning policy. The review is designed to streamline existing national Planning Policy Statements (including that currently set out in PPS25 on flood risk) into a single consolidated National Planning Policy Framework (NPPF). The Department for Communities and Local Government published a draft NPPF for consultation and is currently considering the responses. Government continues to recognise the importance of preventing unnecessary building in areas of flood risk and that new development that does take place should be safe and not increase flood risk. The policies in the draft NPPF seek to ensure delivery against these aims.	Implemented.
8	The operation and effectiveness of PPS25 and the Environment Agency's powers to challenge development should be kept under review and strengthened if and when necessary.	See the report for recommendation 7. Within a reformed planning system, the Environment Agency will continue to play a key role working alongside other flood management bodies in preventing inappropriate development in flood risk areas and reducing the causes and impacts of flooding. There will be greater emphasis on co- operative working between the Environment Agency, local authorities and developers so that flood risk issues can be resolved early within the process.	Implemented.
9	Householders should no longer be able to lay	A householder not being able to lay impermeable surfaces as of right in front gardens has been made into legislation:	Implemented: Ongoing

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	impermeable surfaces as of right on front gardens and the Government should consult on extending this to back gardens and business premises.	http://www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens Government has not extended regulation of permeable surfacing for domestic rear gardens, as the problem of surface water flooding is overwhelmingly with providing driveways on front gardens and if a blanket requirement in relation to all back gardens was introduced, this would be unnecessarily onerous for those areas that do not suffer any issues associated with surface water run-off and flooding. However, where there is an issue with localised surface water run-off and flooding, local planning authorities are able to <u>use existing tools</u> to introduce greater levels of regulation locally. For example, where paving of back gardens is classed as 'permitted development', i.e. permitted without the need for specific planning permission from the local planning authority, and the exercise of permitted development rights results in a local problem, local planning authorities are able to withdraw permitted development rights by 'article 4 directions'. In 2010 Government streamlined the article 4 direction process, replacing the role of the Secretary of State in confirming directions with the local planning authority (in light of local consultation). The Government is also considering the retrofit of sustainable drainage systems as part of the Water White Paper, http://www.defra.gov.uk/environment/quality/water/legislation/whitepaper/ This will set out the UK Government's intentions for the retrofit of SuDS in England, encouraging the disconnection of downpipes, use of rain gardens and the replacement of traditional paving with permeable paving.	work continuing.
10	The automatic right to connect surface water	Schedule 3 of the Flood and Water Management Act contains provision to remove the automatic right to connect surface water drainage of new developments to the	Ongoing: on track for

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	drainage of new developments to the sewerage system should be removed.	sewerage system. Once Schedule 3 is commenced the right to connect will be conditional on the drainage system being approved by the SuDS Approving Body (which will be in unitary or county local authorities).	completion by end December 2014
		On 20 December 2011 the Government launched a consultation on a package of measures which are necessary to implement Schedule 3. The closing date is 13 March 2012. The intention is to commence Schedule 3 as soon as possible thereafter and the commencement date is being explored in the consultation.	
11	Building Regulations should be revised to ensure that all new or refurbished buildings in high flood-risk areas are flood-resistant or resilient.	Although the Building Regulations provide a possible means to deliver flood resistance and resilience in buildings, Government wants to fully explore non- regulatory options which it believes offer a more appropriate and cost-effective means of promoting resistance and resilience. We also expect that reformed planning under the National Planning Policy Framework (NPPF) will continue to help deliver flood resilient and resistant buildings where needed. The Government are committed to publish a final version of the NPPF by March 2012.	Ongoing: on track for expected completion by end March 2012
12	All local authorities should extend eligibility for home improvement grants and loans to include flood resistance and resilience products for properties in high flood-risk areas.	This was addressed through a grant scheme for resistance and resilience measures for households at risk of flooding in areas unlikely to benefit from a Community scheme. The scheme completed in March 2011 and is now being evaluated. The Environment Agency led on the delivery of this action on behalf of the Government. A total of £5.2m was spent over two years providing flood protection for 1,109 properties at very significant flood risk. The Environment Agency has allocated £3.4m for further property level protection work in 2011-12.	Implemented.

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		In future, property level protection will be supported by government as part of the recently announced Flood and Coastal Resilience Partnership Funding, and will be considered on an equal basis to community flood defence schemes.	
13	Local authorities, in discharging their responsibilities under the Civil Contingencies Act 2004 to promote business continuity, should encourage the take-up of property flood resistance and resilience by businesses.	Local authorities have a duty under the Civil Contingencies Act to promote business continuity to businesses. The statutory guidance, <i>Emergency Preparedness</i> , accompanying the Act highlights the risk of flooding; the relevant chapter is currently being re-drafted and further emphasised as part of the Civil Contingencies Act Enhancement Programme and is due for publication in the autumn. The National Risk Register (updated in 2010) also emphasises the risks posed by flooding. In 2012, a guide for small businesses will be launched which will set out the benefits of maintaining business continuity and resilience measures.	Implemented: Ongoing work continuing.
14	Local authorities should lead on the management of local flood risk, with the support of the relevant organisations.	Under the Floods and Water Management Act 2010 Lead Local Flood Authorities (LLFAs) must develop a local flood risk management strategy. The Act sets no specific date by which local strategies have to be developed and published however the duty should be fulfilled within a reasonable time from being commenced in October 2010. Given that LLFAs completed the risk assessment stage of their strategy in June 2011, by complying with the Preliminary Flood Risk Assessment stage of the Flood Risk Regs 2009, the publication of the national strategy in July 2011 and revised guidance within the LGG Framework for local strategies due in Dec 2011, Defra expects most LLFAs to be able to develop and publish their strategies by 2012/13	Implemented.

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		Funding for this new role has been provided of £21m in 2011/12 rising to £36m in 2012/13 and thereafter.	
15	Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility.	Under the Floods and Water Management Act 2010 Lead Local Flood Authorities must (to the extent they consider necessary) investigate incidents of flooding to establish which flood risk management authority has responsibility, what actions they propose and publish the results of the investigation.	Implemented.
16	Local authorities should collate and map the main flood risk management and drainage assets (over and underground), including a record of their ownership and condition.	Under the Floods and Water Management Act 2010 Lead Local Flood Authorities must develop and maintain a register and record of flood risk management or features that have a significant flood risk management effect. Defra has published informal advice in the form of a template of information that a register and record might contain.	Implemented.
17	All relevant organisations should have a duty to share information and cooperate with local authorities and the Environment Agency to facilitate the management of flood risk.	Under the Floods and Water Management Act 2010 all Risk Management Authorities have a duty to co-operate and may share information. The Environment Agency and Lead Local Flood Authorities have a power to request information in connection with their flood risk management functions. The Environment Agency have published (July 2011) Statutory Guidance about the Duty to Co-operate and the exchange of information.	Implemented.
18	Local Surface Water	Defra published guidance to help with the development of Surface Water	Implemented.

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	Management Plans, as set out under PPS25 and coordinated by local authorities, should provide the basis for managing all local flood risk.	Management Plans (SWMPs) in 2010. Defra funded the development of SWMPs for over 80 high risk locations across the country. LLFAs are encouraged to use SWMPs to inform their Local Strategies required under the Flood and Water Management Act 2010, where necessary.	
19	Local authorities should assess and, if appropriate, enhance their technical capabilities to deliver a wide range of responsibilities in relation to local flood risk management.	Defra published a Capacity and Skills building Strategy in 2010. This is currently being implemented through a blended learning approach including workshops (36 courses held in spring 2011), partial sponsorship of 41 students in graduate level training, development of e-learning and the provision of tools and an information portal. Phase 2 of the work is continuing through 2011/12 to help LLFAs with their new duties as the Act continues to be implemented.	Implemented: Ongoing work continuing.
20	The Government should resolve the issue of which organisations should be responsible for the ownership and maintenance of sustainable drainage systems.	Schedule 3 of the Flood and Water Management Act 2010 once commenced, will make the SuDS Approving Body, which will be in unitary or county local authorities, responsible for approving drainage systems for new developments and adopting and maintaining those sustainable drainage systems that serve more than one property. On 20 December 2011 the Government launched a consultation on a package of implementation measures including draft secondary legislation and national	Ongoing: On track for completion by end December 2014.
21	Defra should work with Ofwat	standards for SuDS. The consultation closes on 13 March 2012. The intention is to commence Schedule 3 as soon as possible thereafter and the commencement date is being explored in the consultation.On 20 December 2011 Government launched a public consultation on new-build	Ongoing: On
~ '	and the water industry to	standards for gravity foul sewers and lateral drains, together with arrangements for	track for 1

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	explore how appropriate risk- based standards for public sewerage systems can be achieved.	automatic adoption of these and other assets connected to the public sewerage system by the water and sewerage undertakers (WaSCs), with a view to the commencement of section 42 of the Flood and Water Management Act 2010 (FWMA) thereafter. The consultation covers transitional arrangements, draft regulations to ensure that adoption by the WaSCs takes place and the Secretary of State's standards for new-build gravity foul sewers and lateral drains as required by section 42 of FWMA. The consultation closes on 31 January 2012.	April 2012.
22	As part of the forthcoming and subsequent water industry pricing reviews, Ofwat (the Water Services Regulation Authority) should give appropriate priority to proposals for investment in the existing sewerage network to deal with increasing flood risk.	In addition to the work completed by December 2009, Ofwat has a programme of work to consider regulation in the future. An important part of this is the Sustainable Drainage Project which they will review and potentially reform their approaches to governance, stewardship and regulation of drainage infrastructure. As part of this the water and sewerage companies have used detailed hydraulic models to review the impact of climate change, population and growth in impermeable areas up to around 2040. The complied results are available in a report on http://www.ofwat.gov.uk/ , Future Impacts on Sewer Systems in England and Wales.	Implemented: Ongoing work continuing.
23	The Government should commit to a strategic long- term approach to its investment in flood risk management, planning up to 25 years ahead.	The Environment Agency (EA), with Defra, has produced and published <u>The</u> <u>National Flood and Coastal Erosion Risk Management Strategy for England</u> This has been approved by Ministers and Parliament. Defra announced a new approach to capital funding for flood and coastal erosion risk management projects in May 2011. Welsh Ministers are currently developing a similar strategy for Wales as required by the Flood and Water Management Act 2010.	Implemented.
24	The Government should	The Environment Agency (EA) published its external contributions policy in June	Implemented.

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	develop a scheme which allows and encourages local communities to invest in flood risk management measures.	2009. The policy means that if a local contribution is available towards a scheme, its priority within the capital programme increases and it could potentially be approved and funded earlier than would have been possible without an external contribution.	
		Since introducing the policy, the EA has been engaging with communities to identify opportunities for local investment, and explaining the incentive to invest. It has also established a programme to assess and improve the skills and competence of staff in identifying and negotiating contributions.	
		Since the last update, further Government action has reinforced this recommendation. In May 2011, Defra announced the launch of Flood and Coastal Resilience Partnership Funding. The reforms provide improved transparency and greater certainty over potential funding levels from the general taxpayer for every flood and coastal defence project. The new system will also allow local areas to have a bigger say in what is done to protect them so that, over time, local ambitions in terms of protection no longer need be constrained by what national budgets can afford. It will also encourage innovative, cost-effective solutions to come forward in which civil society may play a greater role.	
25	The Environment Agency should maintain its existing risk-based approach to levels of maintenance and this should be supported by	The Environment Agency (EA) has completed its programme to produce System Asset Management Plans for all high, medium and low consequence systems. These plans now inform cost effective, risk based decision making and maintenance works programmes.	Implemented.
	published schedules of works for each local authority area.	The EA's maintenance programme, including routine and other maintenance activities, is now published for all to see on the internet. <u>http://www.environment-agency.gov.uk/homeandleisure/floods/109548.aspx</u>	

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		This includes routine activities and a range of other activities which are carried out according to the published timetable. It is possible to search the timetable by a variety of criteria, including an individual Local Authority. The EA uses a risk based approach to focus effort on those activities that help it to manage flood risk and coastal erosion where it is economically and environmentally justified to do so. Each site is different so the EA chooses the most suitable maintenance procedure for each stretch of river, coastline or defence based on a clear set of maintenance standards.	
26	The Government should develop a single set of guidance for local authorities and the public on the use and usefulness of sandbags and other alternatives, rather than leaving the matter wholly to	The Environment Agency (EA) has produced a sandbag leaflet for local authorities and the public, which is available on its website <u>http://www.environment-</u> <u>agency.gov.uk/</u> . The leaflet explains how to use sandbags properly for flood protection and the limitations on their use, how to obtain the sandbags, and provides advice to householders, businesses and building contractors wishing to make their own sandbags.	Implemented.
	local discretion.	The EA has also improved its website and produced an advice leaflet to provide more information on the different ways water can enter a property. This includes practical advice on how water can be prevented from entering a property using alternatives to sandbags such as landscaping, non-flow return valves and property level flood protection measures such as flood barriers, flood doors and airbrick covers. The advice also includes information on household flood resilience measures, such as tiled floors and raised plug sockets that can be used to limit the damage flood waters can cause if they do enter a property.	
27	Defra, the Environment Agency and Natural England should work with partners to	The Environment Agency (EA), Defra and Welsh Government established a working group to improve the understanding of natural processes in flood and coastal erosion risk management. The working group has published guidance for	Implemented: Ongoing work

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	establish a programme through Catchment Flood Management Plans and Shoreline Management Plans to achieve greater working with natural processes.	practitioners which includes examples of good practice and how natural processes can be considered in the appraisal of flood and coastal erosion risk management options. A report of the finding of the working group covering England and Wales was published in January 2012. This includes a review of the current state of knowledge and suggestions of where further work could be beneficial, The EA will continue to work with partners to demonstrate the extensive benefits that can be gained through working with natural processes when managing flood and coastal erosion risk.	continuing.
		Supplementary appraisal guidance on Working with Natural Processes to Manage Flood and Coastal Erosion Risk was published by the EA in March 2010. This illustrates the broad range of flood and coastal erosion risk management techniques that work together with natural processes. Defra commissioned and published (June 2010) a policy evaluation of Catchment Flood Management Plans which included working with natural processes. Defra's SMP guidance (2006) highlights the advantages of working with natural processes in order to reduce risks while allowing natural coastal change, and promotes the importance of existing natural defences. A policy evaluation of the second generation of Shoreline Management Plan will be undertaken during 2012.	
28	The forthcoming flooding legislation should be a single unifying Act that addresses all sources of flooding, clarifies responsibilities and facilitates flood risk management.	Due to parliamentary time constraints the Flood and Water Management Act focussed on the immediate legislative requirements. It is intended to consolidate legislation in due course, probably once further water legislation is passed. In the meantime work is continuing on consolidation of some aspects of legislation (e.g. reservoirs) subject to availability of counsel's time. Defra's Departmental Plan makes clear our commitment to complete this consolidation work by December 2014.	Ongoing: On track for December 2014.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
29	The Government and the insurance industry should work together to deliver a public education programme setting out the benefits of insurance in the context of flooding.	 The "Access to Insurance Working Group" was established to improve social housing tenants' access to home contents insurance, focusing on the role of social landlords in increasing demand. The Association of British Insurers produced a good practice guide for housing officers, promoted greater take-up of insurance by people on lower incomes, and launched an "access to insurance" web micro-site. The Group has now fulfilled its terms of reference. It will reconvene if further issues arise. 	Implemented.
30	The Government should review and update the guidance 'Insurance for all: A good practice guide for providers of social housing' and disseminate it effectively to support the creation of insurance with rent schemes for low income households.	There has been further progress since the last update meaning that insurance with rent products are widely available, such as the 'My Home' product offered through the National Housing Federation. This work has been led by the Financial Inclusion Task Force together with insurers and housing associations. However there is more to do to make sure there is widespread availability and high take-up of such products in significant flood risk areas. HMT, Defra and DCLG will consider the case for further action in this area with insurers as part of the ongoing discussions about managing the financial risks of flooding.	Implemented: Ongoing work continuing.
31	In flood risk areas, insurance notices should include information on flood risk and the simple steps that can be taken to mitigate the effects.	Insurers continue to alert their customers to the risk of flooding and how to mitigate that risk.	Implemented.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
32	The insurance industry should develop and implement industry guidance for flooding events, covering reasonable expectations of the performance of insurers and reasonable actions by customers.	Insurance industry guidance was launched in June 2008.	Implemented.

Being rescued and cared for during an emergency

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
3	3 The Environment Agency should provide a specialised site-specific flood warning service for infrastructure operators, offering longer lead times and greater levels of detail about the velocity and depth of flooding.	In January 2011, the Environment Agency (EA) increased access to flood warning information, allowing organisations to obtain live and secure flood warning information. This has enabled the development of specialised and tailored flood warning services using EA information. Civil Contingency Act (CCA) Category 1 and 2 responders may access the raw flood warning data directly from the EA for their own internal use. Other organisations can access the live flood warning data under licence from the Environment Agency's Value Added Resellers (VARs). VARs can develop bespoke flood warning products and services (at a cost) for any organisation. VARs currently licensed to use our data are Halcrow, Shoothill and JBA Consulting. From 1 August 2011, the EA has made available under licence river and sea level data to organisations to enable flood warning products and services to be enhanced further. On 10 October 2011the EA launched a new web-based flood warning service for CCA responders with responsibilities for infrastructure assets such as electricity stations. This new service allows users to monitor the risks of flooding to their assets. The service has been developed following a successful pilot carried out in 2009/10 between the EA and Western Power Distribution (an Electricity Distribution Network operator in South West	Implemented: Ongoing work continuing.

Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
	England and South Wales).	
	'Targeted Flood Warnings for CCA Responders', will provide notifications and display flood warnings which relate to assets stored in the system. 'Assets' can be an office, depot, sub-station, treatment works, critical road junction, anything with a unique	
	ID (Asset Reference) and a Grid Reference. Those who subscribe to the service will be able to:	
	 Upload a spreadsheet containing details of the assets they wish to monitor against Flood Alerts and Flood Warnings. 	
	• Receive an email directing them to check the service when the first asset is affected by a Flood Alert or Flood Warning. Users will also receive an email to confirm when all warnings have been cleared for the assets they have identified.	
	• Set up and maintain their own users and teams for the application via an 'administrator' login.	
	• Filter the information based on asset name, asset type, time issued and warning status.	
	• Set up a tiered structure using team types i.e. National and operational team views. Each team can be configured so they only see the assets that are relevant to them.	
	• Access the contact details of the EA incident rooms for each asset. This is particularly useful for organisations that have a large operational boundary which crosses several EA Areas/Regions.	

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
		 View dynamic GIS maps showing the location of the assets together with Flood Alert/Flood Warning Areas and the Flood Map. 	
34	The Met Office and the Environment Agency should issue warnings against a lower threshold of probability to increase preparation lead times for emergency responders.	The Environment Agency (EA) and Met Office routinely provide flood forecasts and guidance at lower probabilities for emergency responders through the Flood Forecasting Centre (FFC). The FFC issues two key products: the Flood Guidance Statement (FGS) which is a daily assessment of flood risk from all sources for up to five days, and Extreme Rainfall Alerts (ERA) which provide an early indication of surface water flood risk. The FFC also provides advisory services that help explain the risk based method (both probability and impact) that the products utilise for emergency responders, and has established the National Flood Advisory Service for key Government stakeholders to increase the lead time before flooding happens and to escalate the response as soon as significant flood impacts are forecast.	Implemented: Ongoing work continuing.
35	The Met Office and the Environment Agency should issue joint warnings and impact information on severe weather and flooding emergencies to responder organisations and the public.	The Environment Agency (EA), Met Office and Flood Forecasting Centre (FFC) have made considerable progress in aligning and integrating their forecasts, warnings and guidance since 2009. The Met Office's National Severe Weather Warning Service and the FFC's Flood Guidance Statement now share the same risk matrix. Daily checks are also made to ensure that both status and risk are well aligned. The EA's new flood warning codes reflect the same risk basis and colours to provide an integrated service on severe weather and floods for professional partners. This approach has been mirrored by the Scottish Environmental Protection Agency (SEPA) to give a consistent service across England, Wales and Scotland. Joint services for the public have also been developed and the EA now publishes daily on its website a three day version of the Flood Guidance Statement. Expert analysis from both the MO and FFC are included on the	Implemented.

	Pitt Recommendations	Update of progress to January 2012 EA website.	Status or deadline, if action ongoing
36	The Environment Agency should make relevant flood visualisation data, held in electronic map format, available online to Gold and Silver	The Environment Agency has prepared pre-configured computer laptops for staff to take to Gold and Silver Commands to support each Local Resilience Forum. This provides relevant information during flooding emergencies for professional partners, such as outlines of Flood Zones, areas susceptible to	Implemented.
37	Commands. The Environment Agency should work with its partners to progressively develop and bring into use flood visualisation tools that are designed to meet the needs of flood-risk managers, emergency planners and responders.	surface water flooding and flood warnings. The use of the computer laptops for Gold and Silver Commands is the first step in introducing flood visualisation tools. The Environment Agency (EA) has explored with partners how visualisation information is used and several ideas were tested during Exercise Watermark (see below). The EA is now working on presenting information which is in a consistent format.	Implemented: Ongoing work continuing.
38	Local authorities should establish mutual aid agreements in accordance with the guidance currently being prepared by the Local Government Association and the Cabinet Office.	To encourage local authorities to establish mutual aid agreements, a working group comprising the Local Government Association, the Society of Local Authorities Chief Executives, and the Cabinet Office developed guidance, <i>Mutual Aid – A short guide for local authorities</i> , which was published in December 2008.	Implemented: Ongoing work continuing.
39	The Government should urgently put in place a fully funded national capability for flood rescue, with Fire and Rescue Authorities playing a leading role, underpinned	The revised Emergency Response and Recovery Guidance (non-statutory guidance accompanying the Civil Contingencies Act) which states that county and unitary local authorities should be lead responders for multi-agency severe weather emergency planning.	Implemented; Ongoing work continuing.

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
	as necessary by a statutory duty.	The importance of, and procedures for, identifying lead responders has been re-emphasised in revisions to Emergency Preparedness; relevant chapter due for publication in December 2011.	
		The Government has now completed its Flood Rescue Capability Enhancement Project:	
		The new Flood Rescue Concept of Operations has been introduced.	
		 A National Asset Register of specialist flood rescue teams is now in place. 	
		 A £2.5m flood rescue grant scheme has been completed, enhancing the National Asset Register from 39 to over 120 specialist flood rescue teams. 	
		 Discussions are ongoing concerning a statutory duty for Fire and Rescue Authorities and a decision will be made in Government's response to the Exercise Watermark Report, due March 2012. 	
40	Defra should amend emergency regulations to increase the minimum amount of water to be provided in an emergency, in order to reflect reasonable needs during a longer-term loss of mains supply.	The Security and Emergency Measures Direction 1998 (under the provisions of Section 208 of the Water Industry Act 1991) was strengthened in 2009 and the amount of alternative water to be provided should the piped supply fail was increased from 10 litres per person per day to 20 litres per person per day after 5 days of a major incident being declared.	Implemented.
41	Upper tier local authorities should be the lead responders in relation to multi-agency planning for severe weather emergencies at the local	Ongoing local implementation supported by the revised <i>Emergency</i> <i>Response and Recovery Guidance</i> (non-statutory guidance accompanying the Civil Contingencies Act) which states that county and unitary local authorities should be lead responders for multi-agency severe weather	Implemented: Ongoing work continuing.

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
	level and for triggering multi- agency arrangements in response to severe weather warnings and local impact assessments.	emergency planning. The importance of, and procedures for, identifying lead responders has been re-emphasised in revisions to <i>Emergency Preparedness;</i> relevant chapter due for publication in April 2012.	
42	Where a Gold Command is established for severe weather events, the police, unless agreed otherwise locally, should convene and lead the multi-agency response.	Ongoing local implementation. This is supported by the <i>Emergency</i> <i>Response and Recovery Guidance</i> which sets out that when a Gold Command is established for severe weather events, unless agreed otherwise locally, the police should convene and lead the multi-agency response.	Implemented; Ongoing work continuing
43	Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding.	The <i>Emergency Response and Recovery Guidance</i> makes it clear that Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding.	Implemented.
44	Category 1 and 2 responders should assess the effectiveness of their emergency response facilities, including flexible accommodation, IT and communications systems, and undertake any necessary improvement works.	Ongoing local implementation, supported by revised <i>Emergency Response</i> <i>and Recovery Guidance</i> , which was last updated in April 2010, to include these issues. A series of assessment and performance development tools have been launched, including <i>Expectation and Indicators of Good Practice Set for</i> <i>Category 1 and 2 Responders</i> (Parts 1 and 2 published December 2008, Part 3 June 2009), <i>The Role of LRFs: A Reference Document (</i> published March 2011), and a <i>Civil Protection Self Assessment Tool</i> (Category 1 and 2 responders module issued March 2010, LRF module March 2011).	Implemented: Ongoing work continuing.

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
45	The Highways Agency, working through Local Resilience Forums, should further consider the vulnerability of motorways and trunk roads to flooding, the potential for better warnings, strategic road clearance to avoid people becoming stranded and plans to support people who become stranded.	 The Highways Agency has changed its approach to managing the flood risk on the network. Obligation is now placed on the Agency & its service providers to, maintain better records on the vulnerability of the network to flooding. More 'cross overs' in the central barrier of the motorways – which allow for the release of trapped traffic – have been created at a cost of over £6 million across the country. To assist trapped traffic the Agency plans to work more closely with Local Resilience Forums, to jointly support travellers delayed by any lengthy traffic disruption. Improvements to the role of the Agency's Strategic Coordination Cell will now see the SCC keeping a constant watch on the network to detect incidents that may be operationally challenging and then prepare or advise on escalation, (this includes monitoring weather and flooding reports). 	Implemented: Ongoing work continuing.
46	The rail industry, working through Local Resilience Forums, should develop plans to provide emergency welfare support to passengers stranded on the rail network.	The rail industry implemented a system to enable working through Local Resilience Forums, with emergency welfare plans in place to support stranded passengers.	Implemented.
47	The Ministry of Defence should identify a small number of trained	The Ministry of Defence (MOD) and the Cabinet Office have developed the existing central response mechanisms to ensure MOD expertise may be	Implemented

	Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
	Armed Forces personnel who can be deployed to advise Gold Commands on logistics during wide-area civil emergencies and, working with Cabinet Office, identify a suitable mechanism for deployment.	made available in an advisory capacity where existing local or regional arrangements are severely stretched	
48	Central government crisis machinery should always be activated if significant wide-area and high-impact flooding is expected or occurs.	Core arrangements are in place for activation of Central Government crisis machinery if significant wide-area and high-impact flooding is expected or occurs. Trigger levels and thresholds have been clarified in the National Flood Emergency Framework, last revised in August 2011. Nationwide testing of these arrangements was an integral part of Exercise Watermark in March 2011.	Implemented: Ongoing work continuing.
49	A national flooding exercise should take place at the earliest opportunity in order to test the new arrangements which central government departments are putting into place to deal with flooding and infrastructure emergencies.	Exercise Watermark took place during the first week of March 2011 and was the largest civil flood preparedness exercise ever run in England and Wales. It was launched by the Defra Minister, Richard Benyon MP, and it successfully tested the ability of those taking part to respond to widespread extreme flooding. The four day scenario began with surface water flooding in the South West of England, extending into S Wales, the Midlands and the Thames valley followed by a reservoir failure and finished with tidal inundation on the East Coast from the Humber to Kent. Within the core of the exercise fourteen Local Resilience Forums (LRFs) and over ten Government departments were feeding into COBR and Defra. Almost all other LRFs in England and Wales plus well over 200 community groups, some organised by the National Flood Forum, were working on associated local events. Within the core exercise alone on day one, more than 11,000 people from 300+ separate organisations in more than 40 locations took	Implemented.

Pitt Recommendations	Update of progress to January 2012	Status or deadline, if action ongoing
	part. Overall, it is estimated that more than 30,000 people took part in the exercise including local communities.	
	The Exercise Report was published on 31 st October 2011.	

Maintain power and water supplies and protecting essential services

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
50	The Government should urgently begin its systematic programme to reduce the disruption of essential services resulting from natural hazards by publishing a national framework and policy statement setting out the process, timescales and expectations.	 In March 2010, the Cabinet Office published the Strategic Framework and Policy Statement on Improving the Resilience of Critical Infrastructure to Disruption from Natural Hazards, which established the process, timescales and expectations of a cross sector programme to improve the resilience of critical infrastructure to natural hazards. In October 2011, the Cabinet Office published the Guide, Keeping the Country Running: Natural Hazards and Infrastructure. The Guide aims to support infrastructure owners and operators, emergency responders, industry groups, regulators and government departments to work together to improve the resilience of critical infrastructure to natural hazards. It provides advice on: Identifying and assessing risks from natural hazards; standards of resilience; business continuity and corporate governance; guidance for economic regulated sectors; 	Implemented: Ongoing work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		 information sharing; and understanding dependencies. A team remains in place within Cabinet Office to oversee the application of the principles pet part in the Quide.	
51	Relevant government departments and the Environment Agency should work with infrastructure operators to identify the vulnerability and risk of assets to flooding and a summary of the analysis should be published in Sector Resilience Plans.	 of the principles set out in the Guide. Working with other Government Departments, the Cabinet Office has established an annual process for the production of Departmental Sector Resilience Plans for each of the nine national infrastructure sectors. The plans have been produced for 2010 and 2011. Each plan has provided a snapshot of the resilience of the sector's critical infrastructure to natural hazards and, where necessary an action plan to address vulnerabilities. The individual plans are classified but a public summary is compiled by 	Implemented: Ongoing work continuing.
		Cabinet Office to highlight dependencies and encourage cross sector resilience building. The Environment Agency has contributed to the work of the Cabinet Office (Natural Hazards Team) Critical Infrastructure Resilience Programme at both Board and Steering Group Level. The EA was a key player in shaping the Strategic Framework and Policy Statement on Improving the Resilience of Critical Infrastructure to Disruption from Natural Hazards. This document set out the expectations in relation to	

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		Sector Resilience Plans. Understanding vulnerability and exposure to flood risk was a key component of this work. The EA established a process for organisations within their respective sectors to submit a portfolio of assets for an assessment of flood risk including flood history and likelihood based on the EA's Flood Map and other data. This information was then included within Sector Resilience Plans.	
52	In the short-term, the Government and infrastructure operators should work together to build a level resilience into critical infrastructure assets that ensures continuity during a worst case flood event.	The focus of the 2010 Sector Resilience Plans was to provide a snapshot of the resilience of the UK's critical infrastructure to a 1: 200 flood event, and describe actions to address vulnerabilities. The Cabinet Office Guide, Keeping the Country Running: Natural Hazards and Infrastructure reinforces the need to prepare for a reasonable worst case flood event by setting the benchmark that essential services provided by Critical National Infrastructure (CNI) should not be disrupted by a flood event with an annual likelihood of 1 in 200 (0.5%).	Implemented: Ongoing work continuing.
53	A specific duty should be placed on economic regulators to build resilience in the critical Infrastructure.	In developing the programme for infrastructure resilience (see Recommendation 50), the Cabinet Office published 'Interim Guidance to the Economic Regulated Sectors' to assess whether new resilience duties should be assigned to the regulators. It was concluded that government, infrastructure owners and regulators should exploit the existing regulatory framework to its full potential before any new or additional duties for regulators to build resilience are considered.	Implemented: Ongoing work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		This approach has been successfully demonstrated by the significant progress made in physical resilience in critical infrastructure and general response capability since 2007.	
		However, the regulators have varying remits and duties and these are not static. For example, the Digital Economy Act 2010 has provided Ofcom with a specific duty to report to Government on resilience in the communications sector.	
54	The Government should extend the duty to undertake business continuity planning to infrastructure operating Category 2 responders to a standard equivalent to BS 25999, and that accountability is ensured through an annual benchmarking.	In the Guide, Keeping the Country Running: Natural Hazards and Infrastructure, the Cabinet Office recognised the importance of infrastructure owners and operators developing business continuity to a standard equivalent to BS 25999. However, based on the findings of the consultation process, it was acknowledged that meeting the requirements for BS25999 certification may be disproportionate in some cases. For example, where infrastructure owners may already be legally obliged to maintain high quality business continuity plans or, for smaller firms in particular, where the cost may be too high. A flexible approach is therefore promoted but with a strong emphasis placed in securing Board-level engagement in risk assessment and resilience.	Implemented: Ongoing work continuing.
55	The Government should strengthen and enforce the duty on Category 2 responders to share information on the risks to their infrastructure	Detailed discussions with Category 1 and 2 responders, other infrastructure owners Government departments and agencies highlighted that simply enforcing the current legislative framework would not, in itself, produce the necessary improvements in infrastructure focussed information sharing, for example:	Implemented: Ongoing work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	assets, enabling more effective emergency planning within Local Resilience Forums.	 Category 2 responders could not commit the resources to attend all Local Resilience Forums; Discussion of the vulnerabilities of Critical National Infrastructure to hazards and threats was classified; The Cabinet Office considered, therefore, that Category 1 and 2 Responders required advice and guidance on ways to improve infrastructure focussed information sharing and a legislative framework that facilitated, rather than enforced, effective information sharing. There are examples of responder communities that have been able to establish Category 1 and 2 responder information sharing forums able to discuss the resilience of their community's key infrastructure effectively in a secure manner. In the Guide, Keeping the Country Running: Natural hazards and Infrastructure, the Cabinet Office has used these best practice examples to develop a standard protocol for sharing information about infrastructure resilience. 	
56	The Government should issue clear guidance on expected levels of Category 2 responders' engagement in	To clarify guidance on expected levels of category 2 responders "engagement in planning, exercising and response", the Government issued <i>Expectation and Indicators of Good Practice Set for Category 1</i> and 2 Responders (Parts 1 and 2 published December 2008, Part 3 June	Implemented: Ongoing work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	planning, exercising and response and consider the case for strengthening enforcement arrangements.	 2009), The statutory guidance on planning and exercising was revised and launched in November 2011. A consultation on the guidance on monitoring and enforcement was launched in November 2011. Consultation is underway on revisions to the CCA Regulations which, if approved, will enable responders to agree the most effective way in which Category 2 responders can fulfil their responsibilities. The need to strengthen enforcement arrangements has been reviewed as part of the Civil Contingencies Act Enhancement Programme and was not considered necessary. A suite of performance management and development tools have been developed accordingly (see Rec 44). 	
57	The Government should provide Local Resilience Forums with the inundation maps for both large and small reservoirs to enable them to assess risks and plan for contingency, warning and evacuation and the outline maps be made available to the public online as part of wider flood risk information.	The Environment Agency has led on the delivery of this action. By April 2010 all of the detailed reservoir flood maps for large raised reservoirs and the protocol for sharing the maps were made available on the Cabinet Office's National Resilience Extranet (NRE) for emergency responders to use to prepare their emergency plans. Also, the outline maps were sent directly to reservoir owners and made available to the public on the EA website http://www.environment-agency.gov.uk/homeandleisure/floods/124783.aspx .	Implemented.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		Forums to enable them to prepare site specific off-site emergency plans for the 100 highest risk reservoirs.	
58	The Government should implement the legislative changes proposed in the Environment Agency biennial report on dam and reservoir safety through the forthcoming flooding legislation.	The Environment Agency's report on dam and reservoir safety has been implemented through the Flood and Water management Act, which includes provisions for more risk based regulation of reservoir safety. Secondary legislation will be in place by end 2014.	Ongoing: on track for December 2014.

Better advice and help to protect families and homes

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
59	The Risk and Regulation Advisory Council should explore how the public can improve their understanding of community risks, including those associated with flooding, and that the Government should then implement the findings as appropriate.	The Risk and Regulation Advisory Council published its review "Rising Levels? Public awareness and understanding of risks from flooding" in December 2009, in which they made 8 recommendations. All but one of these have been implemented; the Government has started to implement recommendation 6 (Government should support research to further develop the Risk and Regulation Advisory Council's ideas on public risk and responsibility, including appropriate responses to risk. A collaborative programme should be encouraged which might include analysts and academics involved in the RRAC's work, Cranfield University's Centre of Excellence in Understanding and Managing Natural and Environmental Risk, the Health and Safety Executive and other Government departments.), but the change in administration has put this on hold and it has not been picked up again because of reduced resources.	Not completely implemented.
60, 61	The Government should implement a public information campaign which draws on a single definitive set of flood prevention and mitigation advice for householders and businesses, and which can be used by media and the authorities locally and	The Environment Agency has developed a national approach to its flood awareness activity. The aim of this work has been to create a sustainable, long-term state of preparedness in areas most at risk of flooding in England and Wales. One of the key ways in which the project has worked to achieve this is through providing simple, definitive advice and guidance that better enables those at risk of flooding to take practical and simple steps to prepare themselves. Key to this work has been the promotion of	Implemented: on-going work continuing.

P	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
T s a a m v v	hationally. The Environment Agency should work with local esponders to raise awareness in flood risk areas and identify a range of nechanisms to warn the public, particularly the rulnerable, in response to looding.	 community and individual flood plans. This advice has been provided to at-risk communities (including individuals and businesses) through direct community engagement and partnership work on the ground. The advice is also available from the EA website. The EA has promoted the key actions that those at risk can take to prepare for flooding through relevant media activity at a national and local level – signposting them to the advice and guidance on our website where appropriate. Raising the awareness and understanding of the general public is an ongoing activity and the EA will continue to explore opportunities to help people prepare before flooding happens, take appropriate action during a flood and know the steps to take following a flood. Central to the Environment Agency's (EA's) approach to flood awareness activity and community engagement is an understanding of the value and importance of working with and through others to ensure that at-risk communities, especially the most vulnerable within those communities, are able to take effective action before, during and after a flood. 	ongoing
		Last year alone (2010/11), the EA worked with 488 organisations and businesses to inform people and communities about their flood risk and what they can do to prepare (e.g. signing up for free flood warnings on their website).	

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		The EA has actively targeted the most vulnerable people in communities at the highest risk of flooding and has specifically informed 148,000 elderly people, 78,000 parents with young children and 227,000 people on low incomes. The EA continues to work closely with its partners (including the National Flood Forum, Age UK, the Women's Institute, the Women's Royal Volunteer Service and the British Red Cross) in 2011/12 while also exploring the opportunity to develop new strategic partnerships at a national and local level.	
62	The Environment Agency should work urgently with telecommunications companies to facilitate the roll-out of opt-out telephone flood warning schemes to all homes and businesses liable to flooding, including those with ex-directory numbers.	The Environment Agency worked with telephony providers and the Data Commissioner to deliver this recommendation and in 2010 its warning service took a major step forward. The EA introduced a process to add automatically landline telephone numbers of high risk properties to the flood warning system through an 'opt-out' approach including ex-directory numbers. Through this approach the EA has increased the number of high risk properties that were able to receive direct warnings from 14 per cent to 46 per cent by the end of March 2010. By March 2011 a further 10 per cent of high risk properties were added to the flood warning service.	Implemented
		The EA can now send direct warnings to over 1.1 million properties in England and Wales, giving people vital time to get themselves prepared	

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		and therefore help to reduce the impact of a flood.	
63	Flood risk should be made part of the mandatory search requirements when people buy property, and should form part of Home Information Packs.	Flood risk was made part of Home Information Packs; however these were suspended from 21 May 2010 and abolished in November 2011. There is no longer a legal requirement for an investigation of flood risks in the home buying process. However it is likely that where a home is at risk of flooding, prospective purchasers or their advisers will commission an environmental search which addresses flood risk, in line with Law Society guidance to solicitors, and make an informed decision as to whether to proceed.	Not now taken forward.
64	Local Resilience Forums should continue to develop plans for door-knocking, coordinated by local authorities, to enhance flood warnings before flooding and to provide information and assess welfare needs once flooding has receded.	Door-knocking is one of the methods available to responders to warn people. A number of tools will always be necessary to capture the largest proportion of the target audience. Responders assess individual circumstances taking into account health and safety and resource implications.	Implemented.
65	The Met Office and the Environment Agency should urgently complete the production of a sliding scale of options for greater personalisation of public warning information, including costs, benefits and feasibility.	In November 2010 the Environment Agency announced a comprehensive improvement to the flood warning service. New flood warning codes and icons, improved flood warning messages with more locally relevant information, revised flood advice publications and improved information online were launched. The improved information available online included a daily three day ahead public flood risk forecast, local river and sea levels and improved website content on flooding. The Flood Forecasting Centre (FFC) delivered an integrated framework for flood	Implemented: On-going work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
		warning information, advice and warning provision across the EA and Met Office. In April 2010 the FFC introduced a new flood advisory service to provide earlier information and advice to local response partners when flooding is forecast. The Met Office delivered comprehensive improvements to the National Severe Weather Warning Service in April 2011. For the public (and local response partners) the improved information brought clearer, more targeted warnings based on the likely impacts that severe weather will bring.	
66	Local authority contact centres should take the lead in dealing with general enquiries from the public during and after major flooding, redirecting calls to other organisations when appropriate.	The revised <i>Emergency Response and Recovery Guidance</i> (published in August 2009), which supports local implementation, sets out that local authority contact centres should take the lead in dealing with general enquiries during and after major flooding.	Implemented: Ongoing work continuing.
67	The Cabinet Office should provide advice to ensure that all Local Resilience Forums have effective and linked websites providing public information before, during and after an emergency.	The Cabinet Office wrote to local authority emergency planners in April 2009 encouraging information relating to preparing for and responding to emergencies to be clearly visible and accessible.	Implemented.
68	Council leaders and chief executives should play a prominent role in public	Many council leaders and chief executives are well versed in providing public reassurance and advice, working with both local and national media, and continue to work to implement the recommendation. To	Implemented: Ongoing work continuing.

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
	reassurance and advice through the local media during a flooding emergency, as part of a coordinated effort overseen by Gold Commanders.	strengthen local implementation, the Government provided guidance on this as part of the updated "Emergency Response and Recovery Guidance"	
69	The public should make up a flood kit – including personal documents, insurance policy, emergency contact numbers (including local council, emergency services and Floodline), torch, battery or wind-up radio, mobile phone, rubber gloves.	The Environment Agency actively encourages members of the public at risk of flooding to make up a flood kit and collate important telephone numbers in their Personal Flood Plan Template. Encouraging those at risk to develop a Personal Flood Plan is one of the key preparatory messages promoted through face to face engagement with individuals and communities and also as part of the wider flood-related media activities. Community engagement activities include door knocking in areas at high risk of flooding, attending local community group meetings and organising and attending local events. In some areas the Environment Agency has handed out 'starter packs' for flood kits to help get people started. These include hand-powered torches, battery-powered radios, water purification tablets and a personal flood plan template in a waterproof pack.	Implemented.
		The publication, <i>What to do before, during and after a flood</i> ', which is available from the Environment Agency website also provides information on how to make up a flood kit.	
70	The Government should establish a programme to	Cabinet Office launched the Community Resilience workstream by publishing the Strategic National Framework for Community Resilience in	Implemented: Ongoing work

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support and encourage individuals and communities to be better prepared and more self-reliant during emergencies, allowing the authorities to focus on those areas and people in greatest need.	 March 2011. This, together with a range of documents aimed at communities and individuals, is available on the Cabinet Office website and on DirectGov. Cabinet Office is now developing products for specific groups' needs; for supporters of Community Resilience; and to address specific concerns, such as liability and insurance. It is also looking for opportunities to encourage engagement with the programme and to work collaboratively across government. 	continuing.

Recovery

	Pitt Recommendation	Update of progress to January 2012	Status or deadline, if action ongoing
71	The Department of Health and relevant bodies should develop a single set of flood- related health advice for householders and businesses which should be used by all organisations nationally and locally and made available through a wide range of sources.	Working with related organisations (including Drinking Water Inspectorate, Food Standards Agency, Environment Agency and Health and Safety Executive) the Department of Health developed a single set of flood-related health advice for householders and businesses. Updated health advice for both the public and health professionals is available on the Health Protection Agency website	Implemented.
72	Local response and recovery coordinating groups should ensure that health and wellbeing support is readily available to those affected by flooding based on the advice developed by the Department of Health.	Government drafted psychosocial advice to guide local work supporting health and wellbeing. Website links to provide access were developed as part of Recommendation 71. All parties were made aware of the guidance and the links to it on the HPA website.	Implemented.
73	The Government, the Association of British Insurers and other relevant organisations should work together to explore any technological or process	The study was published on the DCLG website in 2010.	Implemented.

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	improvements that can be made to speed up the drying out and stabilising process of building recovery after a flood.		
74	The monitoring of the impact of flooding on the health and wellbeing of people, and actions to mitigate and manage the effects, should form a systematic part of the work of Recovery Coordinating Groups.	Strategic Health Authorities engaged in work on putting in place monitoring systems. The Health Protection Agency already had national systems in place and these informed the final systems put in place at the local level.	Implemented.
75	For emergencies spanning more than a single local authority area, Government Offices should ensure coherence and coordination, if necessary, between recovery operations.	Following the closure of the Government Office Network in March 2011 the responsibility for the co-ordination of recovery and providing support to local responders has reverted to the relevant lead government department for recovery (LGD for Recovery) as identified in <i>Departments</i> <i>Responsibilities for Planning, Response and Recovery from Emergencies.</i> Where recovery action is required across a number of recovery co- ordinating groups (RCGs) and the groups would benefit from co- ordination or enhanced support the LGD for Recovery may establish a Multi-RCG Recovery Co-ordinating Group (RecCG). This is set out in the revision to Chapter 6 of the <i>Central Concept of Operations</i> (CONOPs) and will be fully incorporated into CONOPs for the Spring 2012 update. The LGD for recovery from flooding is the Department for Communities and Local Government.	Implemented.
76	Local authorities should	The national recovery guidance, containing policy, guidance and case	Implemented.

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	coordinate a systematic programme of community engagement in their area during the recovery phase	studies on community engagement during recovery, was published in October 2007 and is periodically reviewedmonths. The Compact, a concordat between central Government and the third sector that sets out a framework for partnership working, was refreshed in December 2010.	
77- 78	National and local Recovery Coordinating Groups should be established from the outset of major emergencies and in due course there should be formal handover from the crisis machinery. Aims and objectives for the recovery phase should be agreed at the outset by Recovery Coordinating Groups to provide focus and enable orderly transition into mainstream programmes when multi-agency coordination of recovery is no longer required.	The National Recovery Guidance reinforces the principle of local Recovery Co-ordinating Groups and their role in agreeing recovery aims and objectives at the outset, for which there is ongoing local implementation. At a national level, the same concepts are captured in the revised Central Government Arrangements for Responding to an Emergency – Concept of Operation (CONOPs), which outlines the doctrine, structures and modes of operation utilised to prepare for respond to and recover from emergencies in the UK. The principles are also captured in the updated Emergency Response and Recovery guidance, published August 2009.	Implemented: Ongoing work continuing.
79	Government Offices, in conjunction with the Local Government Association, should develop arrangements to provide	This is set out in the revision to Chapter 6 of the <i>Central Concept of</i> <i>Operations</i> (CONOPs - described under recommendation 75) which deals with this issue following the closure of the Government Office network. This sets out how Multi Recovery Co-ordinating Groups will be used to bring together relevant organisations such as local authorities and other	Implemented.

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	advice and support from experienced organisations to areas dealing with recovery from severe flooding emergencies.	relevant agencies and bodies, such as the Local Government Association to provide advice and support to the areas affected.	
80, 81	All central government guidance should be updated to reflect the new arrangements for recovery and Local Resilience Forums should plan, train and exercise on this basis. There should be an agreed framework, including definitions and timescales, for local central recovery reporting.	The National Recovery Guidance covers the arrangements for recovery, and is used by Local Resilience Forums (LRFs) to steer their planning, training and exercising. This guidance is supported by topic sheets and case studies to share practice and develop knowledge, including a specific sheet on recovery reporting. New material is added to it regularly, as new information and guidance is produced and new case studies and lessons are identified. The updated Emergency Response and Recovery Guidance also reflects the underlying principles and arrangements for recovery and the need for LRFs to plan, train and exercise on this basis.	Implemented: Ongoing work continuing.
82	Following major flooding events, the Government should publish monthly summaries of the progress of the recovery phase, including the numbers of households still displaced from all or part of their homes.	The updated Emergency Response and Recovery Guidance published in April 2010 contains guidance on appropriate summaries of progress in the recovery phases, including where possible, the numbers of households still displaced from all or parts of their homes.	Implemented.
83	Local authorities should	The Chartered Institute of Public Finance and Accountability (CIPFA)	Implemented.

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	continue to make arrangements to bear the cost of recovery for all but the most exceptional emergencies, and should revisit their reserves and insurance arrangements in light of last summer's floods.	issued revised guidance to all local government bodies in the United Kingdom in November 2008 on LAAP Bulletin 77 – Local Authority Reserves and Balances.	
84	Central government should have pre-planned rather than ad-hoc arrangements to contribute towards the financial burden of recovery from the most exceptional emergencies, on a formula basis.	Government action reported complete in December 2009. – Guidance in Chapter 5.5 of Emergency Response and Recovery Guidance	Implemented.
85	Local Recovery Coordination Groups should make early recommendations to elected local authority members about longer-term regeneration and economic development opportunities.	In December 2010 the Government updated the National Recovery Guidance to support local Recovery Co-ordination Groups in making early recommendations to elected local authority members about longer-term regeneration and economic development opportunities.	Implemented.
86	The Government should publish an action plan to implement the recommendations of this	The Government published progress reports in June and December 2009, and this one in Dcember 2011. This will be the final progress report.	Implemented.

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	Review, with a Director in Defra overseeing the programme of delivery and issuing regular progress updates.		
87	The Government should establish a Cabinet Committee with a remit to improve the country's ability to deal with flooding and implement the recommendations of this Review.	A Cabinet Committee was established to consider the recommendations of the Pitt Review and met a number of times. As many of the activities to respond to the review have now been delivered, the work of the Committee is now being taken forward through a number of structures at different levels within Government.	Implemented.
88	The Government should establish a National Resilience Forum to facilitate national level multi-agency planning for flooding and other emergencies.	Under the National Security Strategy, the Government has introduced a range of governance arrangements for ensuring cross-department and sector cooperation and mutual planning. These include relevant government departments, together with representatives of the blue light organisations, meeting quarterly to discuss national level multi-agency planning for emergencies, including flooding. The value of these regular meetings was demonstrated in the quality of the national level response during Exercise Watermark and the recent emergencies such as the public disorder, the earthquake and tsunami in Japan and the disruption caused by volcanic ash.	Implemented.

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		of a National Resilience Forum. However, rather than a single forum, there are a number of joint initiatives now in place, such as a meeting of Chief Executives with the Prime Minister on cyber-security and continued engagement of over 200 private sector organisations in Information Exchanges, facilitated by the centre for the Protection of National Infrastructure.	
89	The EFRA Select Committee should review the country's readiness for dealing with flooding emergencies and produce an assessment of progress in implementation of the Review's recommendations after 12 months.	Not for Government.	
90- 91	All upper tier local authorities should establish Oversight and Scrutiny Committees to review work by public sector bodies and essential service providers in order to manage flood risk, underpinned by a legal requirement to cooperate. Each Oversight and Scrutiny Committee should prepare	The Floods and Water Management Act 2010 requires that all lead local flood authorities must publish the results of any investigations they carry out into floods in their areas, and whether each of those with risk management responsibilities exercised, or is proposing to exercise, those functions in response to the flood. Local Resilience Forums (LRFs) are tasked by local authorities to oversee the performance of public sector and private sector providers in accordance with the Multi Agency Flood Plans which all LRFs either have developed or are in the process of finalising.	Implemented.

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	an annual summary of actions taken locally to manage flood risk and implement this Review, and these reports should be public and reviewed by Government Offices and the Environment Agency.		
92	Local Resilience Forums should evaluate and share lessons from both the response and recovery phases to inform their planning for future emergencies.	The National Recovery Guidance encourages Local Resilience Forums to evaluate and share lessons from the recovery phase of emergencies, and allows them to share across local boundaries through developing and publishing case studies that address a wide range of emergencies, including flooding. The revised Emergency Response and Recovery Guidance also makes it clear that local responders should evaluate and share lessons from both the response and recovery phases to inform their future planning. Emergency Preparedness is being revised to emphasise the need for the identification and learning of lessons from exercises, and the need for multi-agency monitoring of progress on recommendations where appropriate.	Implemented: Ongoing work continuing.