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

Progress Report

December 2009

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FOREWORD

Since the devastating floods in 2007 the Government, in partnership with many organisations at regional and local level, has been working to improve our ability to anticipate and respond to floods.

Sir Michael Pitt's review of the events of 2007 set out with great clarity what needed to be done to better prepare for all types of flooding, whether from rivers, surface water or the sea. It also set the agenda for a better safety regime for our reservoirs. The Government supported all his recommendations and has been coordinating action to implement them.

This report explains what we and others have done to implement Sir Michael's recommendations. I believe it demonstrates substantial progress and the following pages give many examples of what has been achieved, from the establishment of the Flood Forecasting Centre to more coordinated emergency response and the introduction of the Flood and Water Management Bill.

But there is no room for complacency. We know that with climate change the risk of flooding is only set to increase. The recent major flooding in Cumbria and the heavy rainfall elsewhere in the country has underlined once again the importance of Sir Michael's recommendations. I believe the response to those events by the emergency services, agencies and many others shows that lessons have been learnt. Nonetheless the impact on families and communities has been keenly felt and the process of recovery will take many months.

If we are to meet the future challenge of flooding we must continue to develop the culture of partnership and cooperation which was evident during recent events. The Government remains determined to make this country better able to anticipate and deal with flooding and I believe our progress on the Flood and Water Management Bill and other work to implement the Pitt recommendations clearly shows this.

Hilary Benn
Secretary of State for Environment, Food and Rural Affairs

December 2009

INTRODUCTION

A year on from the Government's response to Sir Michael Pitt's review into the 2007 summer floods, this is the second Government progress report showing what action has been taken to ensure we are better placed to predict, prepare for, deal with and recover from the unique challenges posed by flooding events. Our first Government Progress Report, published in June 2009, showed that the positive start we made when we responded to the Pitt review was maintained, demonstrating progress across the board, with delivery of challenging outputs in some areas.

Examples in the summary pages show how we dealt with the serious flooding that occurred in Cumbria in November. This followed heavy and sustained rainfall of 12.3 inches in 24 hours, which is the highest ever in the United Kingdom. Around 1800 properties were flooded particularly in Cockermouth, Keswick, Workington, Kendal and Ulverston and around 1500 people needed evacuating. Infrastructure was badly affected with 6 bridges lost in the Cumbria area, and a number of road and footbridges were closed because of concerns about their stability. The Association of British Insurers has estimated the cost of the damage to be at least between £50-100 million. The picture below gives an aerial view of the extent of flooding in Cockermouth, Cumbria.



Picture 1: Aerial view of flooding in Cockermouth, November 2009
Source: the Environment Agency

One large area of work which we featured in our last progress report was in relation to the Flood and Water Management Bill, which is intended to give effect to a number of Pitt recommendations. Our work on this has been progressing and on 19 November we introduced the Flood and Water

Management Bill into Parliament. This Bill follows from the Draft Bill that was published for consultation in April this year and has been refined in the light of the Pre-Legislative Scrutiny report from the Environment Food and Rural Affairs select committee and the many consultation responses we received. The Bill addresses the need for action in a number of areas, particularly:

- clarifying responsibilities and enabling local authorities to lead the management of local flood risk;
- facilitating the use of a wider and more sustainable range of approaches for managing risk; and
- risk based regulation of reservoirs.

Due to constraints of Parliamentary time, it will not be possible to immediately provide the unifying legislation that was recommended in the Pitt Review. However, the most pressing legislation is being taken forward in the current Bill and it is intended that further legislation will be prepared in other areas to provide unifying legislation at the earliest opportunity.

On 19 November Defra also laid its implementing Regulations for the EC Floods Directive¹. These Regulations set out the framework within which we will discharge obligations in England and Wales under the Directive. This will involve producing preliminary flood risk assessments, to identify the areas that are significantly at potential risk of flooding, and maps of these significant risk areas showing the extent and impact of future floods. This information will then be used to produce management plans setting out how we will mitigate the risks identified.

All the work we do on flood management is underpinned by the approach we take to managing climate change, and this report demonstrates that we continue to place a priority on actions to both mitigate and adapt to climate change.

In addition, this report shows the initial work many local authorities and Local Resilience Forums have done in implementing the recommendations relevant to them. These recommendations will require ongoing efforts to ensure the changes proposed by Sir Michael are fully embedded. [Part Two](#) of this progress report shows what action these organisations have taken in responding to the challenges of flooding.

¹ Directive 2007/60/EC of the European Parliament and the Council of 23 October 2007 on the assessment and management of flood risks

PART ONE: SUMMARY OF PROGRESS SINCE JUNE 2009

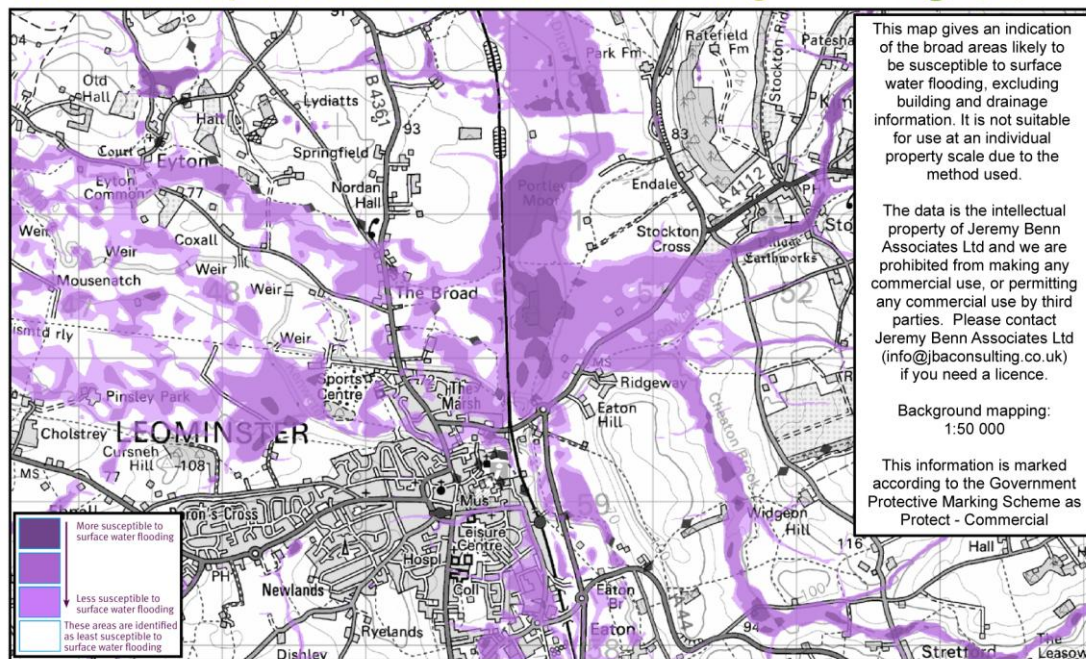
Key progress and developments since our last progress report of June 2009 are summarised below. [Part Three](#) of this report gives an update on progress against all Pitt recommendations and [Annex A](#) contains an update on funding for the Pitt review recommendations.

Knowing when and where it will flood

The examples below demonstrate what the Environment Agency and Met Office have done to improve our ability to predict the timing and extent of future flooding events.

The Environment Agency has been working closely with local authorities on the six first edition Surface Water Management plans, which were funded by Defra. This has been supported by their work to develop tools and techniques to model surface water flooding (rec 5). The map below shows the result of the modelling for the Leominster area owned by the Environment Agency.

Areas Susceptible to Surface Water Flooding



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July 2009

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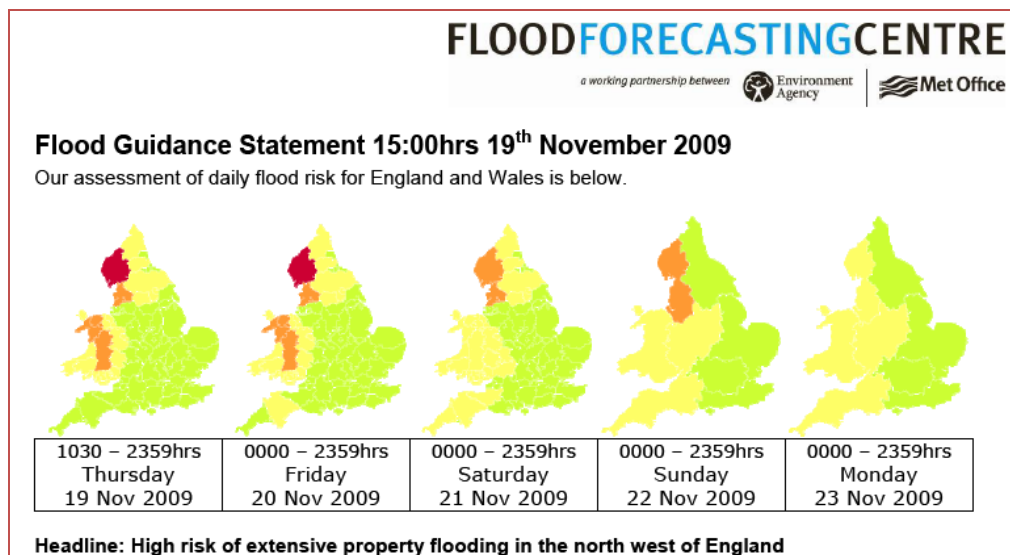
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Picture 2: Environment Agency assessment of surface water flooding in the Leominster area
Source: The Environment Agency

This level of information and detail is available for local authorities and emergency planners across England and Wales. It is being used, in conjunction with local knowledge, to identify areas susceptible to surface water flooding and define the need for further work to understand surface water flooding.

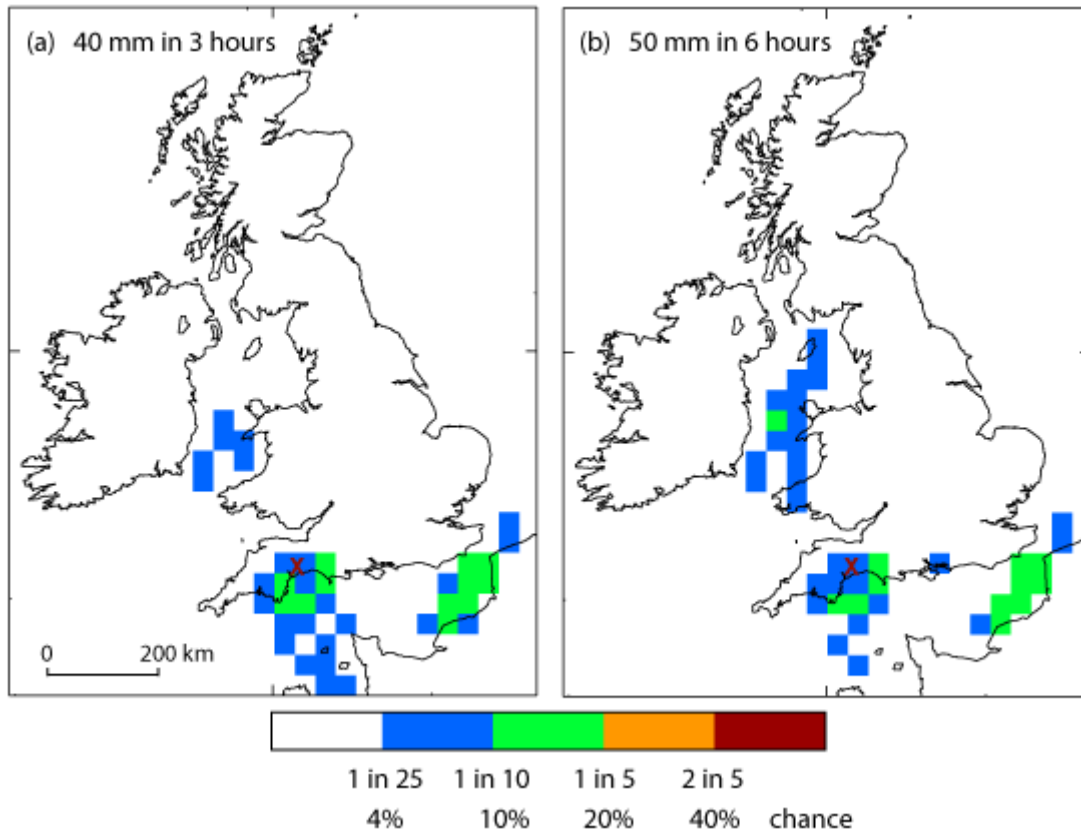
Since its launch in April 2009 the Environment Agency and Met Office joint Flood Forecasting Centre (FFC) has continued to make advances in our ability to deliver guidance on the likelihood of flooding with longer lead times and more accurate, targeted information to emergency responders around the country (rec 6).

For example, during the Cumbria floods, the FFC played an important role in providing emergency responders with early guidance on the rainfall forecast as well as expert advice on the risks. Thirty-six hours before the flooding occurred, the FFC indicated a high risk of significant property flooding and extreme danger to life in Cumbria via its Flood Guidance Statements and rolling telephone conferences with local responders. This was achieved by having Met Office forecasters and Environment Agency hydrologists working side-by-side, giving emergency responders a longer lead-time to prepare and respond. The picture below shows the Flood Guidance Statement from 3 pm on 19 November.



Picture 3: Flood statement forecasting likelihood of flooding from 19 November
 Source: The Flood Forecasting Centre

The work being carried out by the Met Office on probabilistic forecasting techniques is allowing more informed decision making, particularly for emergency response organisations. Below is a plot taken from a case study forecast for the Ottery St. Mary hail storm and flood in 2008.

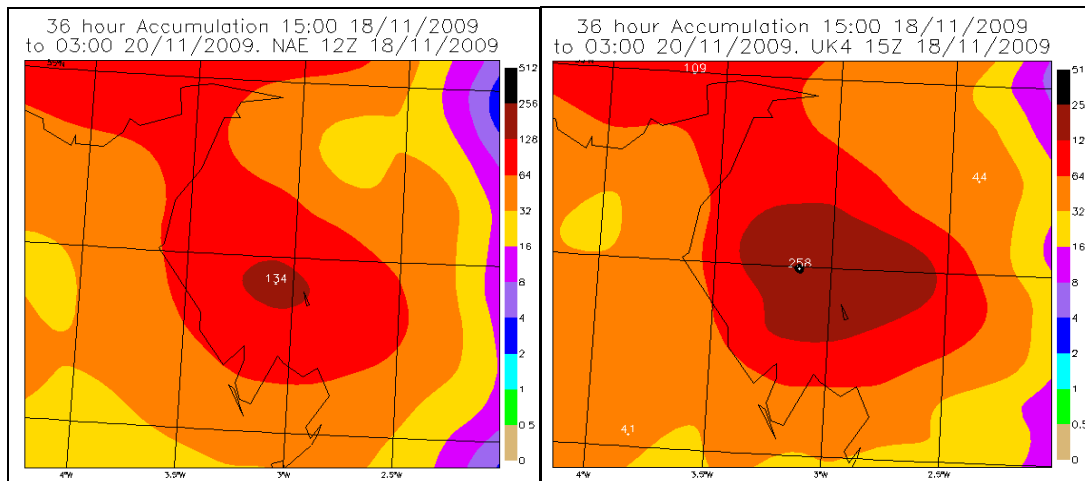
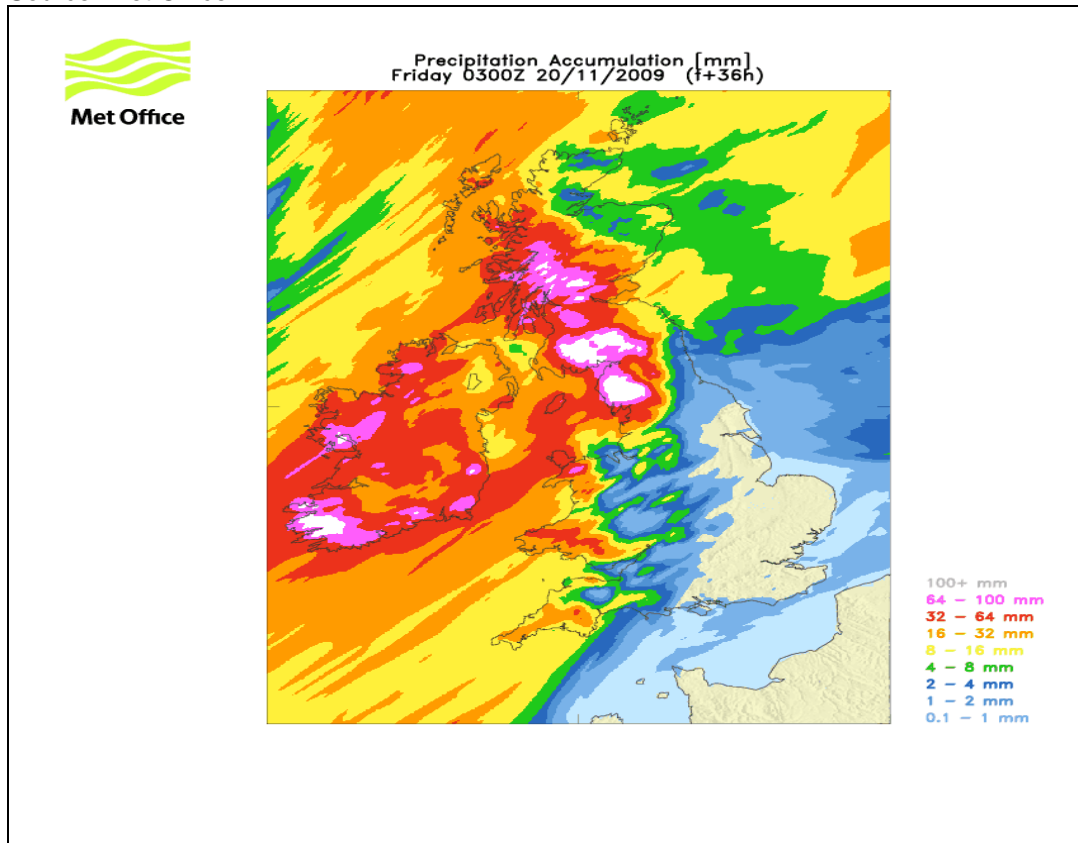


Picture 4: illustration of higher resolution weather forecasting
Source: Met Office

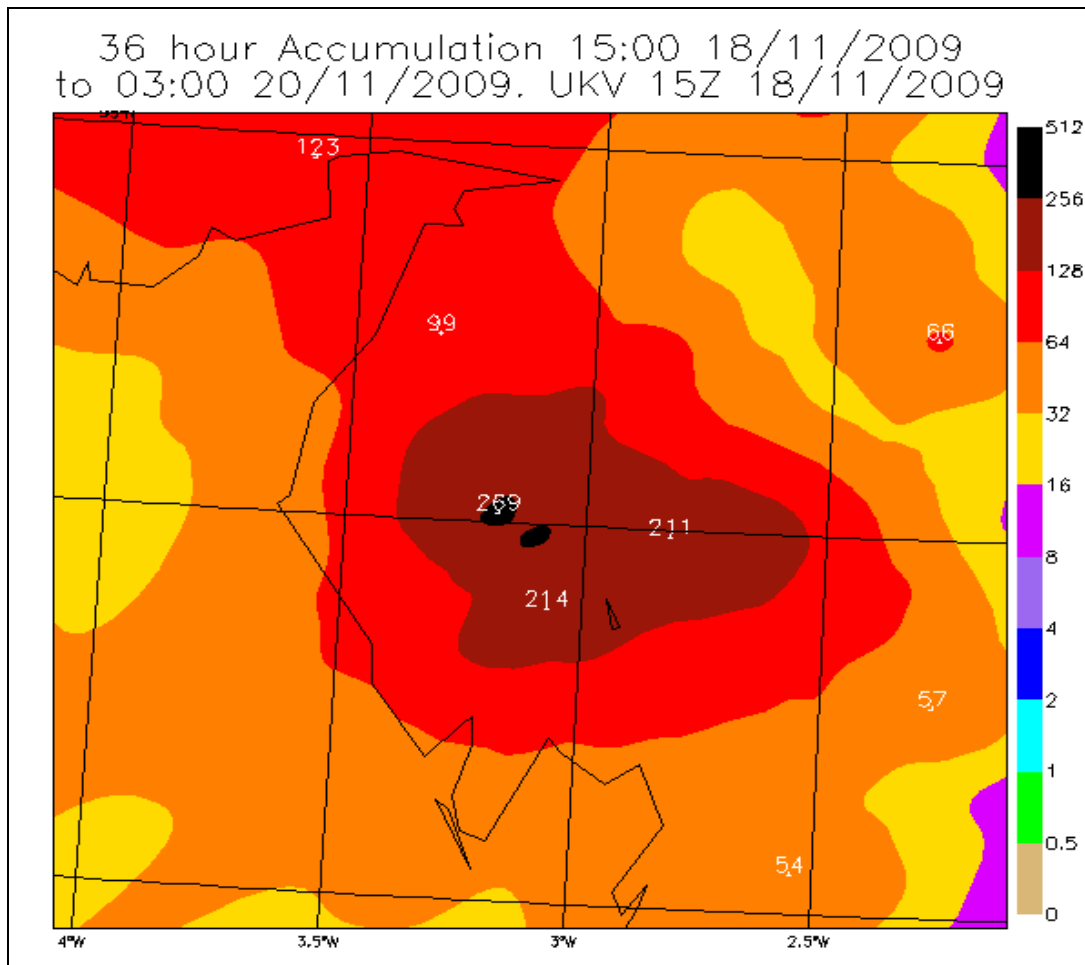
The picture shows the forecast probability of exceeding critical thresholds of 40 mm of rain in 3 hours and 50 mm of rain in any 6 hour period between 6pm on 29 October 2008 and 8am on 30 October 2008. These thresholds indicate a serious risk of surface water flooding and are used in the Extreme Rainfall Alerts (ERA) service operated by the FFC. The cross marks, in picture 4, show the location of the storm that occurred.

In addition, Met Office work on high resolution modelling will enable forecasts to become more precise about the weather expected in a particular locality. The following graphics are of the 36-hour forecasts of rainfall accumulation in Cumbria in November 2009. Picture 5 shows the forecast across the UK at 1.5km resolution, pictures 6, 7 and 8 shows Cumbria at 12km, 4km and 1.5km resolution respectively.

Picture 5: T+36hr accumulation UK 1.5km model
 Source: Met Office



Picture 6 : T+36hr accumulation 12km model Picture 7 : T+36hr accumulation 4km model
 Source: Met Office



Picture 8: T+36hr accumulation 1.5km model
Source: Met Office

This work is supporting advances in probabilistic forecasting techniques and combined with the operational use of higher resolution models this will give greater confidence in the broader pattern of weather as well as precision in the detail. We expect this model will become operational from September 2010.

Reducing the risk of flooding and its impact

Under this theme the examples below show the progress we have made to help mitigate the risk of future flooding events through the deployment of flood defences, changes to the planning system and local leadership on flood risk management.

Since summer 2007 the Environment Agency has completed and maintained 106 flood defence schemes providing improved protection to more than 63,800 homes in England.

In relation to development planning, the practice guidance accompanying Planning Policy Statement 25 (PPS25) (therein the 'guide') was updated on 7 December 2009, to reflect policy and other developments (including the

Pitt Review and the Government's response to it), since the guide was first published in June 2008 (rec 7). The guide also reflects new and updated case study text, with supporting illustrations and photos. The guide is an integral part of supporting the policy approach in PPS25, and it has been acknowledged by stakeholders as a helpful tool to implement policy. Furthermore, following a public consultation on some limited amendments, the Department of Communities and Local Government (CLG) aim to publish an amended version of PPS25 in early 2010 which will clarify the application of the policy to (amongst other things) essential infrastructure (rec 8).

CLG continues to work closely with local authorities, the Environment Agency and other stakeholders to ensure the PPS25 approach is delivered on the ground. They continue to monitor the application of the Consultation Direction 2009 (which subsumes within it the former Flooding Direction of 2006). This requires a local planning authority to notify the Secretary of State (for Communities and Local Government) of any planning application for major development (eg 10 or more homes) in a flood risk area, where it is minded to grant permission despite a sustained objection from the Environment Agency on flood risk grounds. This enables the Secretary of State to consider whether to 'call-in' the application for his own determination.

In Appleby, following the flooding in 2005, Defra funding was made available through the Environment Agency to install flood resilience and resistance measures. These prevented 46 properties flooding during the recent Cumbria floods (although flood levels at Appleby were not as high as in 2005 when 100 properties were affected).

Defra has taken forward a number of initiatives to support local authorities realise new and expanded responsibilities on local flood risk management (rec 14-19). For example, in August 2009 £16 million funding was announced to help local authorities tackle surface water flooding. [Part Two](#) of this report explains in more detail what progress local authorities have made.

In relation to the insurance recommendations (29-32), which highlight the need to improve advice and education to the public and guidance to insurers, a working group comprised of Government and industry representatives has been set up by the Association of British Insurers (ABI) to improve social housing tenants' access to home contents insurance. The group aims to increase the number of social landlords offering tenants contents insurance (TCI) and to help encourage housing officers to promote such schemes. Furthermore, HM Treasury and the Department of Work and Pensions have commissioned Financial Inclusion Champions to host a number of pilot 'Tenant Engagement Groups' (TEGs). These groups will work with housing associations to promote the benefits of home contents insurance to tenants and community groups and will develop a training tool for housing officers. To date 600 tenants have been engaged via the pilot TEGs and of these 200 have taken out home contents insurance. The ABI also launched its 'Access to Insurance' micro-site in July 2009. This micro-site is a one-stop shop on TCI. The site contains information on what contents insurance is, the benefit

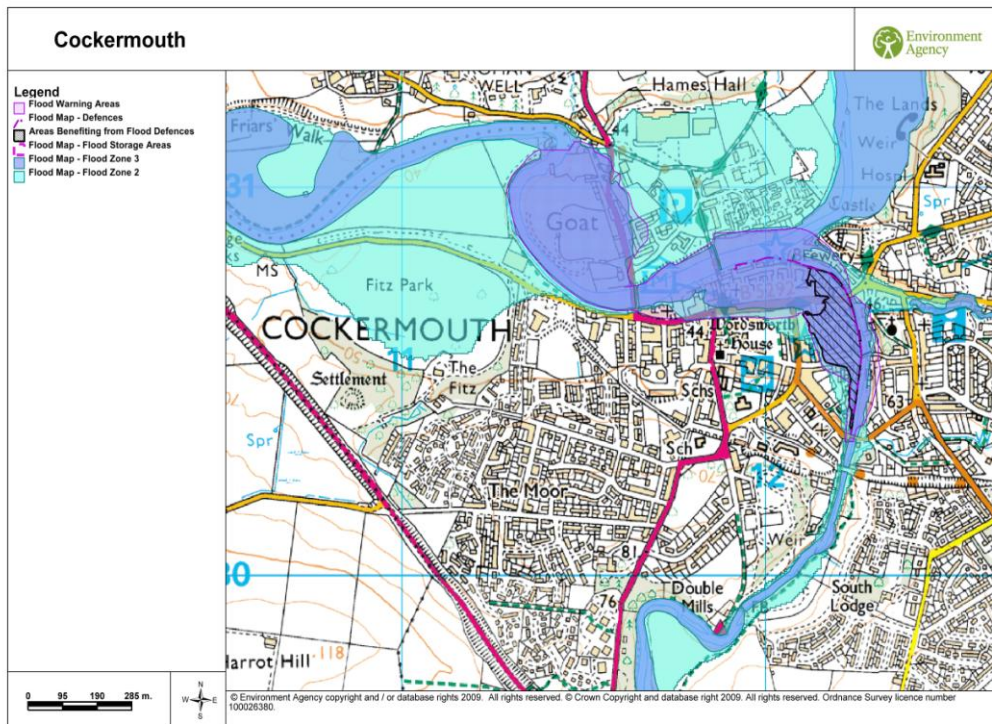
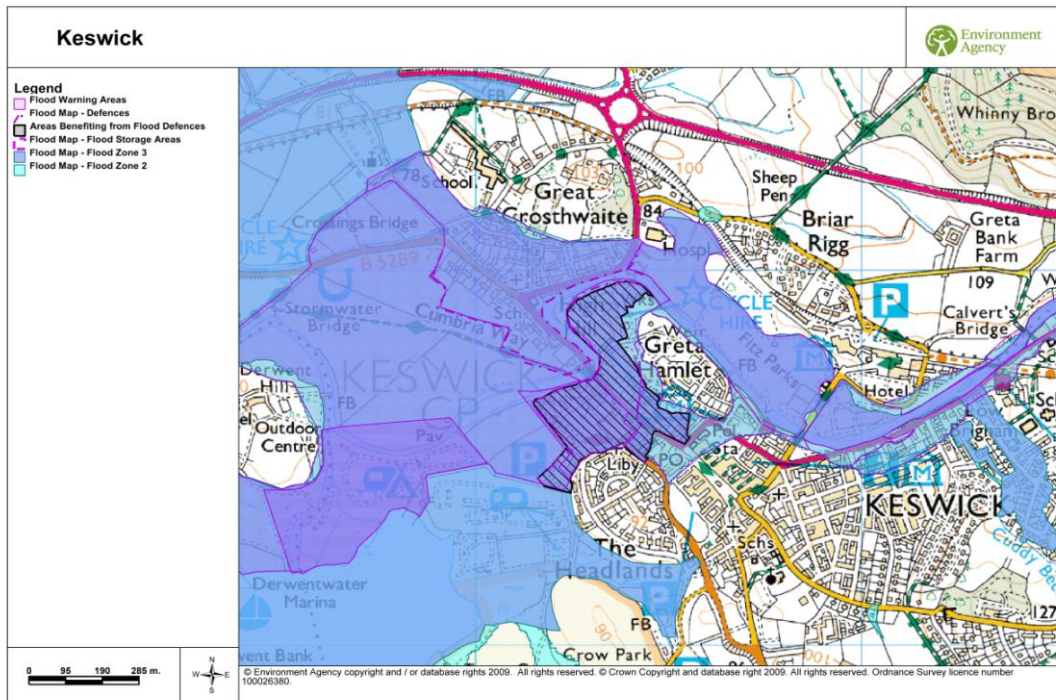
to landlords and tenants of promoting and having it, and how the different products work.

Being rescued and cared for during an emergency

We have illustrated below a number of work streams to ensure we are better prepared for rescue and recovery operations, including on our visualisation capabilities which seek to improve the way information is provided to emergency responders and thus enabling them to react more effectively in rescue operations.

In its work to develop more tailored flood warnings for infrastructure owners (rec 33), the Environment Agency has been working with Western Power Distribution (WPD). WPD has agreed to pilot a solution which identifies the infrastructure affected by each flood warning so that during a flood event it can receive tailored warnings about what infrastructure is at risk. The Agency has also established a working group with the Energy Networks Association (ENA) to plan the roll-out of this service to other ENA members and to other infrastructure operators in due course.

The Environment Agency has continued to develop its visualisation data for Silver and Gold Commands (rec 36-7). For example, the maps below were used at Cumbria Gold Command in November 2009. These maps were created by the Agency's staff at Gold Command using the latest forecasts on river level rise from regional forecasters, to make an assessment in conjunction with local forecasters, of the likely inundation area. They were able to create and print maps of the forecast inundation area, overlaid with maps showing where a flood warning service is offered. The areas of potential inundation on the maps are divided into flood zones. Zone 3, shaded dark blue, has the highest probability of flooding and would be affected before Zone 2, which is shaded light blue. Providing this type of information in real time was vital for Gold Command.



Picture 9 and 10: illustration of flooding visualisations used at Cumbria Gold Command in November 2009
 Source: the Environment Agency

A Flood Rescue Concept of Operations (FRCO) (rec 39) is almost finalised for consultation. This will include standard operating procedures for flood rescue

responders, asset and communication standards and will define national coordination of assets. Greater clarity and certainty will be established in respect of specialist flood rescue operations during a major flood event, and confidence will be improved through clarity within Gold Commands about matching the deployment of flood rescue with requirements. This will ensure that the best strategic use is made of existing specialist resources, and future assets.

Good progress has been made in developing a Flood Rescue National Asset Register which will be coordinated by the Fire and Rescue Service National Coordination Centre. All flood rescue responders who meet the required standards for equipment, training and teams with prescribed outcomes as set in the FRCO, can be included on this register to ensure a standardised, coordinated multi-agency approach to flood rescue. The consideration of any need for statutory underpinning of the role of any of the agencies involved will be a follow-on task excluded from the immediate scope of this project.

In Cumbria, it was evident that coordination between flood rescuers was greatly improved. The Government has put in place interim guidance for requesting mutual aid and has an agreement to use the Fire and Rescue Service National Coordination Centre. This guidance was used during the flooding, and assets were deployed from Manchester Fire and Rescue Service using an Interim Flood Rescue Asset Register, ensuring that Gold and Silver commands had access to all necessary equipment to cope with the level of flooding that occurred.

The process for requesting assets will be turned into full guidance in the near future. A fully fledged National Asset Register will also be established and through a 'gap analysis' which will be completed in January 2010, we will assess and look to address any shortfall in capability that exists.

Also, the Highways Agency has completed a number of work programmes to deliver better warnings, more strategic road clearances and support to stranded passengers on motorways and truck roads following a flooding event (rec 45).

Maintaining power and water supplies and protecting essential services

The new Natural Hazards Team in the Cabinet Office has, as part of its work to build resilience of critical infrastructure sites, issued for consultation its strategy and policy statement on resilience of critical infrastructure (Rec 50). This consultation contains proposals for a cross-sector programme to improve the resilience of critical infrastructure and essential services to severe disruption by natural hazards.

Since summer 2007, the infrastructure sectors most affected by floods have invested in flood defences and other measures to improve their resilience. The Natural Hazards Team is co-ordinating this work to ensure appropriate standards of resilience are in place across all nine infrastructure sectors.

The Natural Hazards Team has screened nearly 1000 critical national infrastructure sites for flood risk across nine sectors and identified 171 that are in areas that could flood from rivers or the sea:

Communications	14 sites
Emergency Services	17 sites
Energy	41 sites
Finance	4 sites
Food	0 sites
Government	9 sites
Health	12 sites
Transport	11 sites
Water	63 sites

The lead Government departments are preparing a Sector Resilience Plan for each sector to understand the vulnerability of these 171 sites from flooding and to identify what actions are needed to improve resilience to disruption from natural hazards.

Examples of action taken across the sectors since 2007 are:

- The temporary defences at Mythe Water Treatment Works in Gloucestershire have been reinforced;
- Flood defences have been provided for the East Hull and West Hull sewage pumping stations and at the Hull wastewater treatment works to defend the sites from a 1 in 200 year flood event;
- Specific substations where flooding has occurred in the past have been fitted with flood defences. For example Walham and the 132kV substation in Carlisle that flooded in 2005;
- At a critical site in Exeter, the electricity distributor has replaced switchgear in a substation and elevated the new installation above the level of the potential flood waters;
- Humberside Police has invested £870,000 in flood defences for the police headquarters in Hull;
- The Humberside Fire and Rescue Service has raised IT and communications equipment 1.5m above ground level to ensure continuity of service in future flood events;
- HM Revenue and Customs has relocated critical infrastructure to a new site as a flood risk assessment indicated the previous premises was at a significant risk of flooding; and
- National Grid have invested over £1m in flood defence capabilities, including on a 1.2 km temporary flood defence barrier which can be deployed when floods are threatened in a similar way to the one used at Walham substation in 2007. This has the benefit that it can be deployed

anywhere that it is needed, subject to the risk of the road network being flooded.

The Cabinet Office's critical infrastructure resilience programme is working across Government to identify the risks to other critical infrastructure from flooding and other natural hazards. Action will then be taken to ensure that measures are delivered to improve the resilience before a hazard occurs. This includes looking at the balance between improving resilience and contingency planning in order to maintain the security and continuity of services in the event of a natural hazard.

As part of their reporting on the Pitt recommendations that require local implementation, Surrey County Council described what they are doing to improve the resilience of its infrastructure. As a partner in the Surrey Infrastructure Capacity project, which involves all twelve authorities in the County, the County Council has been identifying current and future levels of infrastructure needed to manage the growth projected in the South East, including flood defences. Key outputs have been an audit of infrastructure capacity and condition and a set of costed strategic infrastructure schedules that will form the blueprint for infrastructure provision in Surrey. These can be downloaded from the project website:

<http://www.surreyimprovement.info/sicp>

In relation to reservoirs, the Government has completed reservoir mapping (rec 57) and is in the process of distributing those maps to Local Resilience Forums.

Better advice and help to protect families and homes

The Environment Agency has continued to improve advice to householders and businesses on flood prevention and mitigation (rec 60-1 and 69) by raising awareness and providing an on-line registration service for the public to sign-up to flood warnings. Over 140,000 people have signed-up to receive flood warnings in England and Wales since the 2007 floods. A further 400,000 people will be able to receive direct warnings when the opt-out system goes live at the end of February 2010 (rec 62). Through its new awareness raising approach the Environment Agency is on track to support in the production of 120 community floods plans this financial year. The illustration below is from the Environment Agency's 'Preparing for a Flood' guide and contains helpful advice on putting together flood kits (rec 69).

your flood plan

Know how to turn off
your gas, electricity
and water mains supplies



Start preparing today before a flood happens.
Use this checklist as your flood plan.

- 1. Check your insurance cover**
 - Check your buildings and contents insurance policy.
 - Confirm you are covered for flooding.
 - Find out if the policy replaces new for old, and if it has a limit on repairs.
 - Don't underestimate the value of your contents.
- 2. Know how to turn off your gas, electricity and water mains supplies**
 - Ask your supplier how to do this.
 - Mark taps or switches with stickers to help you remember.
- 3. Prepare a flood kit of essential items (please tick)**
 - Copies of your home insurance documents.
 - A torch with spare batteries.
 - A wind-up or battery radio.
 - Warm, waterproof clothing and blankets.
 - A first aid kit and prescription medication.
 - Bottled water and non-perishable foods.
 - Baby food and baby care items.
 - This leaflet including your list of important contact numbers.
 - Keep your flood kit handy.
- 4. Know who to contact and how**
 - Agree where you will go and how to contact each other.
 - Check with your council if pets are allowed at evacuation centres.
 - Keep a list with all your important contacts to hand.
- 5. Think about what you can move now**
 - Don't wait for a flood. Move items of personal value such as photo albums, family videos and treasured mementos to a safe place.
- 6. Think about what you would want to move to safety during a flood**
 - Outdoor pets
 - Cars
 - Furniture
 - Electrical equipment
 - Garden pot plants and furniture
 - What else?
 -

Picture 11: extract from the Environment Agency's new 'Preparing for a Flood' guide
Source: Environment Agency

Recovery

The Government has published its updated Emergency Response and Recovery Guidance. Representations from Government Offices and Local Resilience Forums have illustrated that many of the principles in the guidance are being implemented on the ground.

During the November Cumbria floods, the Environment Agency established its own internal Recovery Group at an early stage, in parallel with the ongoing incident management structure. This has allowed them to be in a strong position to contribute to the County's Gold Recovery Group. Environment Agency officers were out in force across the county prior to and over the incident, checking flood defences, inspecting reservoirs, deploying pumping equipment and clearing debris from rivers. They maintained 24 hour cover on the ground during the height of the incident, using resources from across the country.



Picture 12: Environment Agency staff worked to shore up flood defences in Cockermouth during the flooding in November 2009

Source: The Environment Agency

Cumbria County Council put in place local recovery arrangements using the Recovery Plan they developed following the November floods. A Recovery Co-ordinating Group (RCG) was convened by the County and includes the three District Councils most directly affected (Allerdale, Copeland and South Lakeland), the Health Protection Agency, the Environment Agency, Government Office North West, the Police and the chairs of sub groups covering business and economic recovery, health and welfare, environment and infrastructure.

A communication sub-group has also been established to help co-ordinate information and ensure consistent messages are given to affected communities and stakeholders. This involved the National Flood Forum and ABI which resulted in the provision of joint information on resilient repairs for example.

CLG is coordinating the flood recovery response by central Government, which includes taking the lead in a cross-Whitehall Ministerial committee looking to ensure that local authorities and other local partners have the support they need as they begin the process of returning to normality.

Government has provided £2 million to communities in Cumbria devastated by the flooding and also practical transport support, including a temporary footbridge and a free train shuttle service. In the long-term, Government will continue to work with the local community to rebuild the infrastructure in West Cumbria.

PART TWO: PROGRESS ON LOCAL IMPLEMENTATION OF THE PITT RECOMMENDATIONS

On 21 September Defra and the Cabinet Office wrote to Local Authority Chief Executives, Government Offices and Chairs of Local Resilience Forums to ask what progress had been made on their implementation of the Pitt recommendations that relate to them.

This request recognised that some recommendations put forward by Sir Michael require ongoing local efforts to implement change and achieve outcomes the review concluded were necessary. Hence, the summary of responses in this section describes actions taken and progress made to date; recognising that work in these areas is ongoing.

Some authorities commented that progress on implementing recommendations depended on funding. Details on the funding made available by the Government for Pitt implementation are in [Annex A](#) of this report. In relation to the new roles and responsibilities contained in the Flood and Water Management Bill the funding fact sheet available from the link below contains details on funding the Government is making available.

<http://www.defra.gov.uk/environment/flooding/documents/policy/fwmb/factsheet-la-funding.pdf>

LOCAL AUTHORITY - SUMMARY OF RESPONSES

The local authorities that responded are listed in [Annex B](#). 152 responses were received from local authorities, which is around 43% of all authorities in England. A summary of actions described in these responses are highlighted below. The table below contains a fuller list of activities recorded in the reports from local authorities.

Recommendation 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

The majority of reports from local authorities show that action is being taken in this area by the provision of advice and support for business continuity planning. This was achieved by the use of a number of media or promotional events, either through their own dedicated staff or through engagement with their Local Resilience Forums.

For example, Kirklees Council have attended various events such as the Honley Show, Great Yorkshire Show, business breakfast seminars, town centre business meetings, and Weathering the Storm events to promote and raise awareness of emergency preparedness and business continuity,

including community resilience. They have also worked with the University of Huddersfield to run a digital media competition, which led to the production of promotional media.

St Helens Council meanwhile is examining the potential of a software tool for 'Business Continuity and Incident Management Planning' aimed at reducing loss and making business more resilient.

Recommendation 14: Local authorities should lead on the management of local flood risk, with the support of the relevant organisations

This recommendation is reflected in the new legislation Defra is putting in place in the Flood and Water Management Bill and also in its transposition of the EC Floods Directive, which makes county and unitary local authorities responsible for local flood risk management in relation to the deliverables under the Directive.

Responses from district and borough authorities demonstrated their engagement in local efforts to manage flood risk by, for example,

- participating in local partnerships, and
- engaging with the Environment Agency, utility companies and neighbouring districts to: (1) identify flood risks within their areas; (2) cross boundary implications; and, (3) the appropriate responses.

Responses from county and unitary local authorities demonstrated that some were taking leadership of local flood management issues by setting up Strategic Flood Management Groups or other forums within which interested parties can come together, or by taking the lead in developing multi-agency flood management plans. Specific initiatives include:

- development of Coventry multi-agency surface water management plans and a Strategic Drainage Group and Floods Recovery Group for Devon.
- event held by the Association of North East Councils (ANEC) on "Flooding: Leading the Way Ahead". As a consequence groups established to work across local authorities and partners to both support the setting up of strategic flood risk management partnerships and to develop a regional report and action plan to deliver the new risk management partnerships in the North East.
- Inclusive frameworks being developed by Dorset and Lincolnshire County Councils to undertake their new responsibilities in collaboration and co-operation with the boroughs, districts and other interested stakeholders.
- 'One' team approach to strategic flood risk management developed by Surrey County Council to bring together a wide range of service colleagues from diverse backgrounds including Emergency

Management, Highways, Environment and Economy, Countryside Services, Fire and Rescue, Minerals Planning and Climate Change.

Recommendation 15: Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility.

In their responses, some authorities explained that they already investigate sources of local flooding events in order to ascertain ownership and responsibilities. Other authorities explained they were waiting for the Flood and Water Management Bill to enter into force before they started work in this area. However, almost all authorities that commented explained that they worked closely with a range of stakeholders and parties locally to resolve flooding related issues. For example, in Leeds the creation of the Flood Risk Technical Forum is proving useful in arranging joint investigation of problems where there are overlapping responsibilities.

In efforts to tackle local flooding problems Surrey County Council has committed £1.2m for the next three years to address the problem of 'wetspots' in the county. Their database of 'wetspots' is made available to the County's Contingency Planning Team in order that they have the latest information on potential areas of localised flooding in planning their response to emergency issues across the county.

Gloucester City Council are testing new software which will allow information to be captured on all aspects of watercourses including riparian ownership, maintenance, on-going works, condition of assets, culvert sizes, photographs etc. to ensure more effective investigation of future flooding events. Nottinghamshire County Council (see below) have purchased specialist drainage vehicles in order to proactively address local flooding problems.



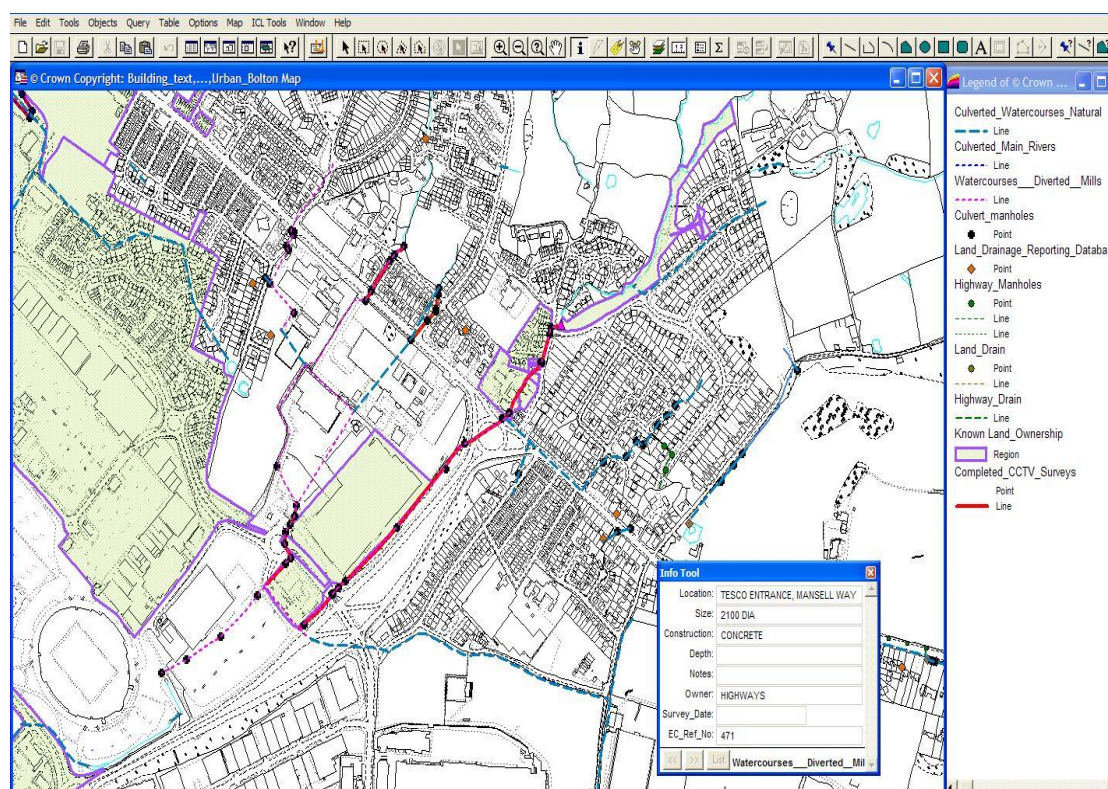
Picture 13: Drainage response vehicles purchased by Nottinghamshire County Council
Source: Nottinghamshire County Council

Devon County Council has developed a concept called the 'Flood Chain' on which it intends to base and prioritise flood mitigation measures. The concept is still in its infancy but it works on the principle of identifying responsibility and actions for managing surface water run-off from the moment rain hits the top of a catchment to the point it discharges into a main river, out to sea or through any other outfall. It suggests that in general it is easier, more effective and less costly, to deal with surface water at the higher points of the surface water catchment area.

Recommendation 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.

Almost all local authorities who reported on this recommendation stated they had begun work on mapping drainage assets, for example through the completion of Strategic Flood Risk Assessments (SFRA), but that this work was ongoing as new information came to light. For example, Hertfordshire County Council has begun to use a new electronic system to map flood risk management and drainage assets. This system will record a variety of information including ownership and condition. Bury Council are using their SFRA to form the basis for an emerging strategy to reflect the Councils' strategic approach to flood risk. South Gloucestershire Council is working with Wessex Water to map drainage assets.

Bolton Council has already collated and mapped the location of known drainage assets within a spatial database; which will continue to be developed as further drainage assets are discovered. Extensive condition surveys of watercourses have been undertaken, in particular those where the local authority is the owner or has liability such as the highway authority. Bolton Council also keeps a database of all land drainage and flooding related issues, and customer enquiries since 2000 (and some additional flood records exist dating back over 50 years). The illustration below shows their drainage asset maps.



Picture 14: illustration of drainage mapping carried out by Bolton Council (Source: Bolton Council)

Where mapping work had not been carried out councils reported that this was because of lack of guidance or funding restraints, with some authorities saying the size of the task is beyond their resources. Others commented that they were reliant on others for information on drainage assets and lack of information exchange was affecting their ability to make progress.

Recommendation 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.

Almost all authorities reported strong working relationships with local partners, especially as part of their Local Resilience Forums in adhering to the provisions in the Civil Contingencies Act and this is demonstrated by the existence of multi agency flood groups and development of multi agency flood plans. For example, Cambridgeshire County Council has established 'Cambridgeshire's Flood Risk Management Partnership' made up of the city

council, district councils, the Environment Agency, Cambridgeshire Horizons, Anglian Water and the county's internal drainage boards.

Some authorities explained the importance of obtaining necessary information from water companies and expected the Flood and Water Management Bill to assist data exchange.

The Local Government Association (LGA) Group has developed resources to support local authorities implement the Pitt recommendations. These include a 'Community of Practice on Flood Risk and Water Management' on the following website www.idea.gov.uk/flooding where authorities and their partners can communicate, share ideas, access details of events, useful documents, recent news and announcements. This also includes a self-evaluation checklist for local authorities, based on the EU model of prevention, protection, preparedness, emergency response and recovery and lessons learned. Case studies, action learning sets for members and a guide to scrutiny are planned for early 2010. LGA also encourage authorities to share best practice through LGA conferences, seminars and workshops.

Recommendation 18: Local Surface Water Management Plans, as set out under PPS25 and coordinated by local authorities, should provide the basis for managing all local flood risk

A number of authorities have received funding from Defra to develop Surface Water Management Plans (SWMPs); this included the 6 pilots which were funded earlier this year. For example Gloucestershire County Council received a Defra grant in January 2009 to undertake a first edition SWMP. The project has involved close partnership working with the six district councils, Environment Agency and Water Companies. In broad terms the outputs have been threefold:

- the project involved an overview study of the county to determine the extent and likelihood of surface water flooding, which has produced a list of priority locations at high risk of surface water flooding;
- 'intermediate' 2-D modelling with the inclusion of the sewer network, and the addition of boundary conditions (such as river levels), providing a combination of pluvial and sewer modelling of appropriate robustness to be used to inform spatial and emergency planning; and
- the production of a detailed SWMP for one high risk location in the county, using an integrated urban drainage model including details of sewers, drains, watercourses and streets to determine flooding risk.

More recently, in August 2009, Defra announced funding for an additional 77 SWMPs. A number of authorities have suggested that they will be unable to carry out the work necessary for this recommendation without further clarification of roles and responsibilities. We expect this to be resolved by the enactment of the Flood and Water Management Bill.

Recommendation 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.

Reports from local authorities in this area provided a diverse range of viewpoints and statements on progress. In most cases local authorities had reviewed or carried out a skills audit of current capacity to find out what more was needed. For example Derby City Council is currently assessing staff capabilities using a competency framework, which will identify shortfalls in knowledge and experience. Following such assessment some councils have begun to recruit extra staff or enhance current capabilities. However, some other authorities reported that they would be waiting for the Flood and Water Management Bill to be enacted as securing extra resource in advance of legislation was difficult.

Craven Council commented, amongst others, on the importance of devoting sufficient funds to develop capacity. However, Craven Council has joined the West Yorkshire Land Drainage Group and the Yorkshire and Humberside learning alliance to help make progress. Their lead officer undertakes training wherever possible and will be attending a course on sustainable urban drainage systems.

In Coventry, a Multi Agency Surface Water Management Group is being established to bring together engineering, strategic planning and environmental expertise along with external partners, including the Environment Agency and Severn Trent to galvanise experience and expertise.

In addition, some local authorities reported that they had taken advantage of the Defra funded two year Environment Agency Flood and Coastal Risk Management Foundation Degree. The picture below shows Jake Fell, the recently appointed Foundation Degree Student working with East Herts District Council. In the picture, he is assisting a drainage investigation on an ordinary watercourse in Hertford, which on 2 February 2009, burst its banks and flooded the A414 dual carriageway.



Picture 15: Foundation student investigating a watercourse which previously flooded
Source: East Herts District Council

Recommendation 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.

Almost all authorities that reported on this recommendation said that mutual aid agreements or memoranda of understanding (MoUs) were in place between local authorities. However, few commented on the operation of these agreements except West Berkshire Council who reported that MoUs had proved not to be as effective as desired following severe weather in February 2009, when it was clear that further progress could be made on the sharing of resources.

Recommendation 41: Upper tier local authorities should be the lead responders in relation to multi-agency planning for severe weather emergencies at the local level and for triggering multi-agency arrangements in response to severe weather warnings and local impact assessments.

Almost all county or unitary authorities indicated that action had been taken on this recommendation, with either established arrangements in place or appropriate flood plans being developed to achieve clarity on who takes the lead. A number of authorities were planning training or exercises to test agreed arrangements, such as Bolton Council. Nottinghamshire County Council carried out 'Exercise Diamond II' on 8 December 2009. This exercise was part of the programme of multi-agency exercises commissioned by the Nottingham and Nottinghamshire Local Resilience Forum (LRF), funded by the Environment Agency, and designed and run by members of the LRF Flood

Working Group. Exercise Diamond II was a one-day desk based event designed to simulate a multi-agency response to a protracted and widespread flooding event in Nottingham and Nottinghamshire in order to test and validate the LRF Flood Response Plan.

Recommendation 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 majority of authorities reported that they have mechanisms in place to deal with queries from the public during and after major flooding, with arrangements to provide training and core scripts to deal with emergency scenarios.

Hampshire County Council has a dedicated contact centre (HantsDirect), for which plans and arrangements have been drawn up for how the contact centre would be used in the response to an emergency. This facility would be used during and after flooding events and the facility exists within the contact centre to redirect calls to other agencies if appropriate.

However, a number of authorities commented on potential overlap with the Environment Agency's floodline service. Defra is working with local authorities, the Environment Agency, local flood risk groups and other stakeholders to develop a framework within which local authority and the Environment Agency contact arrangements will link to and complement each other, providing a single initial point of contact for flood response, warning and preparation.

Recommendation 68: Council leaders and chief executives should play a prominent role in public reassurance and advice through the local media during a flooding emergency, as part of a coordinated effort overseen by Gold Commanders

Those that reported progress on this recommendation said their leaders were trained to undertake this role. For example, in Torrington, the Council Chief Executive and Heads of Service received training, and took part in a multi-agency tabletop flood exercise in November 2008.

Others commented that protocols and procedures were in place to secure engagement of council leaders. In the main, local authorities reported that their leaders accepted their responsibilities in this respect, for example in Gloucester City Council both Chief Executive and the Leader of the Council made site visits during the flooding emergency and made themselves available for press interviews.

Recommendation 81: There should be an agreed framework, including definitions and timescales, for local central recovery reporting.

Many authorities who reported on this recommendation stated that frameworks for recovery reporting were incorporated in recovery plans or guidance documents. Others pointed to the Local Resilience Forum flood response plans, which included guidance on recovery reporting. Some authorities said they had developed and put in place situation report templates to ensure consistency of reporting.

Recommendation 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.

Those that covered this point in their responses stated that they adhered to any central Government requests for reports and worked with Local and Regional Resilience Forums. Some authorities stated that a reporting requirement was embedded in their procedures by way of their multi-agency action plans.

St Albans Council reported that they are involved in an initiative that is being led by the Hertfordshire Resilience Partnership to develop and put in place collaborative technology to facilitate situation reporting. Blackburn and Darwen Council have put in place a specific Information Collection Plan to set out procedures for reporting to its Government Office. A few councils noted that gathering information was burdensome and should not be too bureaucratic.

Recommendation 90 and 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 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

A number of county and unitary authorities reported that they had established oversight and scrutiny committees; some were dedicated to floods whereas in other cases flood management featured on the agendas of related committees, such as Housing or Emergency Preparedness Committees.

A number of authorities reported that they had undertaken actions to monitor their own implementation of the Pitt Review, such as Harlow, Worcestershire, Bolton, Essex, and Gloucestershire.

Surrey County Council reported that they had set up a Pitt Review Monitoring Task Group and had made recommendations to the Surrey County Council Executive. The recommendations are now allocated across five Surrey County Council select committees. These select committees are scrutinising

progress against the recommendations, with a view to reporting on progress in January 2010.

Kent County Council reported that they will establish a Flood Risk Management Committee by early 2010, which will consider the Pitt Review and relevant requirements of the Flood and Water Management Bill.

Table: showing the kind of actions being taken by local authorities against recommendations which require local implementation.

LOCAL AUTHORITY PITT RECOMMENDATIONS	ACTIONS BEING TAKEN BY LOCAL AUTHORITIES
<p>Recommendation 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</p>	Active encouragement/advice given on business continuity management
	Use of various media to promote development of and use of flood resilience and resistance measures
	Business continuity work carried out in partnership with Local Resilience Forums (LRF) – with particular advice on the LRF website
	Liaison work with Business Link, Chamber of Commerce and National Flood Forum
	Planning multi-agency flood exercise specifically for local businesses
	Training/seminars offered to local businesses
	Business continuity working groups/ fora or networks established
	Identification of high risk areas for business continuity
	Business fairs or other promotional events held
	Business continuity teams established/staff employed
	<p>Recommendation 14 Local authorities should lead on the management of local flood risk, with the support of the relevant organisations</p>
<ul style="list-style-type: none"> • External stakeholders 	
<ul style="list-style-type: none"> • The Environment Agency 	
<ul style="list-style-type: none"> • Water companies 	
<ul style="list-style-type: none"> • Internal drainage boards 	
<ul style="list-style-type: none"> • Other local authorities in the area 	
Training workshops held	
Project working or working groups to develop flood plans established	
Emergency planning exercise planned	
Lead taken on developing multi-agency, recovery, drainage or flood plans	

	Local risk registers developed
	Community Emergency plans developed
	Identification of responsibility for waterways and drainage assets
	Progress monitored against National Indicator 189
Recommendation 15: Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility.	Working relationships established with riparian owners
	Working with local residents to identify flood risk
	Good working relationships established with:
	<ul style="list-style-type: none"> • Environment Agency
	<ul style="list-style-type: none"> • Water companies
	<ul style="list-style-type: none"> • Other authorities
	<ul style="list-style-type: none"> • Other organisations eg Chamber of Commerce, residents associations
	Local flood groups established to take relationships and ownership issues forward
	Local floods investigated to realise ownership and responsibility
Reviews undertaken to establish ownership of relevant assets	
Recommendation 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.	Existing records progressively being updated
	Work being done in relation to SWMPs
	Determining methodologies ahead of receiving mapping guidance from Central Government
	Sustainable urban drainage group set up to prepare guidance on mapping
	Close working with others, including Water Companies, on mapping assets
Recommendation 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.	Strong local involvement with Local Resilience Forums
	Multi-agency flood response plans/partnerships/forums and groups established
	Reports and projects shared and undertaken by relevant and interested parties
	Asset data recorded in a standard Geographic Information System format – to facilitate straightforward exchange of information between relevant bodies.
	Cooperation and information sharing, especially in order to comply with the Civil Contingencies Act 2004.

	Creation of information (data) sharing protocol
Recommendation 18: Local Surface Water Management Plans, as set out under PPS25 and coordinated by local authorities, should provide the basis for managing all local flood risk	Liaison in place on surface water issues with the Environment Agency
	Making bids for central government funding
	Preparing SWMPs
	Strategic Flood Risk Assessments undertaken
Recommendation 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.	Authority has taken up a place on Environment Agency foundation degree course with Defra funding
	Waiting for the Bill to review and identify resources
	A review or skills audit undertaken to determine capability and resource implications – with assessment of capability gaps identified
	Recruiting new technical staff or have set up new teams
	Enhancing current capabilities through training or engagement with other experts
	Ensure lead officials involved in cross discipline working groups to expand experience and expertise
	Using external consultants for specialist roles
	Meetings and fora established with relevant officers in order to approach local flood risk management
Recommendation 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.	Mutual aid arrangements or Memorandum of Understanding in place
Recommendation 41: Upper tier local authorities should be the lead responders in relation to multi-agency planning for severe weather emergencies at the local level and for triggering multi-agency arrangements in response to severe weather warnings and local impact assessments.	Established local arrangements for activation of major incidents plans
	Established procedures in multi agency flood plan
	Multi agency exercises planned to test arrangements

<p>Recommendation 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.</p>	<p>Current systems exist to carry out this work with arrangements for providing scripts and training to deal with emergency scenarios and for expanding services out of hours if necessary</p>
	<p>Where no capacity in place, authorities support developing ability to carry out this function</p>
	<p>Corporate Communication Major Incident Media Plan in place for coordinating media information</p>
<p>Recommendation 68: Council leaders and chief executives should play a prominent role in public reassurance and advice through the local media during a flooding emergency, as part of a coordinated effort overseen by Gold Commanders</p>	<p>Protocols and procedures in place to ensure reporting to leaders</p>
	<p>Reflected in authority's plans dealing with emergencies or media handling, which may also set out roles and responsibilities</p>
	<p>Training, briefings, exercise opportunities provided to key councillors</p>
	<p>Corporate communications function exists and takes lead in public communications</p>
<p>Recommendation 81: There should be an agreed framework, including definitions and timescales, for local central recovery reporting.</p>	<p>Reflected in recovery plans, Local Resilience Forums (LRF) Flood response plans or guidance documents or LRF framework documents</p>
	<p>Sit-Rep templates and processes developed and in use to ensure consistent reporting</p>
<p>Recommendation 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.</p>	<p>Providing recovery reports, in close liaison with Local and Regional Resilience Forums</p>
	<p>Putting in place collaborative technology to facilitate situation reporting</p>
	<p>Reporting requirement set out in action plans or information collation plans</p>
<p>Recommendation 90 and 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</p> <p>Each Oversight and Scrutiny Committee should prepare an</p>	<p>Flooding discussed in existing scrutiny panels</p>
	<p>Scrutiny committees established to discuss flooding and other related issues</p>
	<p>Assessment or report on implementing actions against Pitt recommendations completed or planned</p>

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	
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LOCAL RESILIENCE FORUMS – SUMMARY OF RESPONSES

This section summarises progress reports on the nine recommendations that fall to Local Resilience Forums (LRFs) or Government Offices to implement.

The principal mechanism for multi-agency co-operation at local level in planning for and responding to a major incident, such as a significant flood event, is the LRF. At a regional level, Regional Resilience Teams are embedded in each Government Office.

It should be recognised that, whilst many of the recommendations falling from the Pitt Review were directed specifically at local authorities, these are also Category 1 responders under the Civil Contingencies Act 2004². Local authorities are therefore obliged to cooperate with other responders and organisations within their local resilience area and as a part of the LRF. Local authorities have, therefore, contributed to LRF reporting in particular on emergency planning and response aspects, as well as separately in their individual responses, [*described in the previous section*](#).

All nine Government Office Regional Resilience Teams in England responded. These responses covered the progress reports from their respective LRFs of which there are a total of 43 across England. This is illustrated in the map (referenced picture 16) below.

A short summary of responses follows.

Recommendation 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.

It was clear from the responses that this was a well established principle and that many LRF protocols stated that the police would convene and lead the multi-agency response. This is supported by the revised “Emergency Response and Recovery Guidance” published by the Cabinet Office in July 2009.

As mentioned earlier, following the recent floods Cumbria Gold command was set up promptly, to deal with the response to the events through multi-agency co-ordination.

Local responses highlighted an example of good practice in Hampshire, where an adverse weather office has been established. This is a multi-agency response office based in the Hampshire Police control room, which has worked well and has been taken up by other LRFs in the region. Another

² A Category 1 responder is a person or body listed in part 1 of schedule 1 to the Civil Contingencies Act 2004, normally at the core of the response to an emergency.

example is the production of a severe weather plan, which Essex Police have put in place.

In addition, Gloucestershire LRF has, on many occasions, been able to successfully use their major incident plan.

Recommendation 43: Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding.

The principles and procedures for establishing an early Gold Command have been agreed and are already a part of LRFs' practice.

For example, Lancashire LRF has trained personnel, put plans in place and has also tested the robustness of these plans in training exercises. Humber LRF has employed the Emergency Planning College to deliver a specific course to its LRF partners. Nottinghamshire has developed training events and carried out Exercise Diamond II which tested the establishment of a precautionary Gold command.

Recommendation 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.

Many LRFs have already undertaken an assessment of their emergency response facilities. It is recognised there is a need for ongoing assessment and improvement and that all Category 1 and 2 responders need to have appropriate business continuity plans in place.

For example, Lincolnshire LRF has invested £100,000 to refit the county emergency centre following the floods in 2007. The facilities have been tested and there is a continuous programme of maintenance and improvement. Birmingham resilience team have a newly refurbished and tested emergency control centre and the comprehensive continuity arrangements include alternative control centres. In Gloucestershire LRF, Category 1 responders have reassessed the effectiveness of their emergency response facilities and taken steps to ensure that improvement works have been completed.

Recommendation 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.

There is a mixed picture on progress with implementation of this recommendation. This is largely because door knocking is only one method of communication and is not always the most appropriate method for warning and informing the public. Nevertheless, LRFs are mindful that door-knocking

may be appropriate in some circumstances and, if not already, will be considering this as part of their warning and informing strategy.

Door knocking has been implemented in Portsmouth City Council in the Old Portsmouth area which is particularly vulnerable to flooding. Other areas use vehicle public address systems and radio, and have tested other options for communicating with the public.

Lancashire LRF recognises the limitations of door knocking and has taken a pro-active approach in issuing flood leaflets to all properties within flood warning areas.

Alternative solutions include the use of an active flood warden scheme in a number of parishes in Bournemouth, Dorset and Poole which will facilitate the dissemination of warning and information to the public.

Essex LRF has undertaken a considerable amount of work on informing and preparing the public, including developing an educational package for school children to teach them about risks such as flooding.

Recommendation 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 recognises that it is important for information to be available in many forms and where the public would expect to find it. Its Civil Contingencies Secretariat 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. It is clear from the LRF responses that information is available through most organisations' websites. Some LRFs have specific websites but it is evident that the public visit these sites infrequently.

Cleveland LRF recorded a poor hit rate for their website, though in comparison, the Cleveland Council Emergency Planning Unit (EPU) website scored highly. Therefore, all visitors to the LRF website are now redirected to the EPU website. This in turn has links to the Cabinet Office UK Resilience website, the Environment Agency, Government Office and the Emergency Planning Society Websites.

Another example of good practice is Surrey Alert which provides a link to all responders' web pages and is a good general source of information to the public.

Londonprepared.gov.uk includes links to the appropriate information on flooding published by the Environment Agency and other organisations. The website also links to all other relevant London local authority websites.

The Bedfordshire and Luton LRF website is considered to be another example of good practice. It includes public pages and a password protected section for emergency planning practitioners/responders. The public pages give relevant advice and information, which is updated during an incident.

Recommendation 77: 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.

Responses confirmed that the principles outlined in the National Recovery Guidance have been adopted locally. LRFs have protocols and plans setting out how and when the recovery coordinating group should be established and its aims, objectives and transitional arrangements. Examples of where this has been tested include Greater Manchester and Northumbria where a series of multi-agency table top flood exercises were undertaken.

The London Command & Control Protocol and Recovery Management Protocol sets out that a Recovery Cell will be formed at the earliest opportunity during the response to an emergency. Formal handover procedures are also included.

Recommendation 78: 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 principles outlined in the National Recovery Guidance have been adopted locally. The majority of LRFs have protocols and plans setting out how and when the group should be established and its aims, objectives and transitional arrangements.

Kent LRF confirmed the process is already embedded and was being written into their recovery framework. This is due to be tested by a training exercise in the near future. Handover arrangements are contained in their Strategic Emergency Framework.

The Nottingham and Nottinghamshire LRF recovery plan acknowledges the shift from recovery to regeneration.

Recommendation 79: Government Offices, in conjunction with the LGAs, should develop arrangements to provide advice and support from experienced organisations to areas dealing with recovery from severe flooding emergencies.

These principles are covered in the National Recovery Guidance and the Mutual Aid Guidance.

Government Office (GO) East Midlands reported that it had drafted a regional top tier and unitary local authority mutual aid agreement. A regional co-ordinating group would be established to support activity across the region.

GO West Midlands has set up a “Transition to Recovery” seminar bringing together agencies responsible for aiding recovery in the region with counterparts from Yorkshire and Humberside.

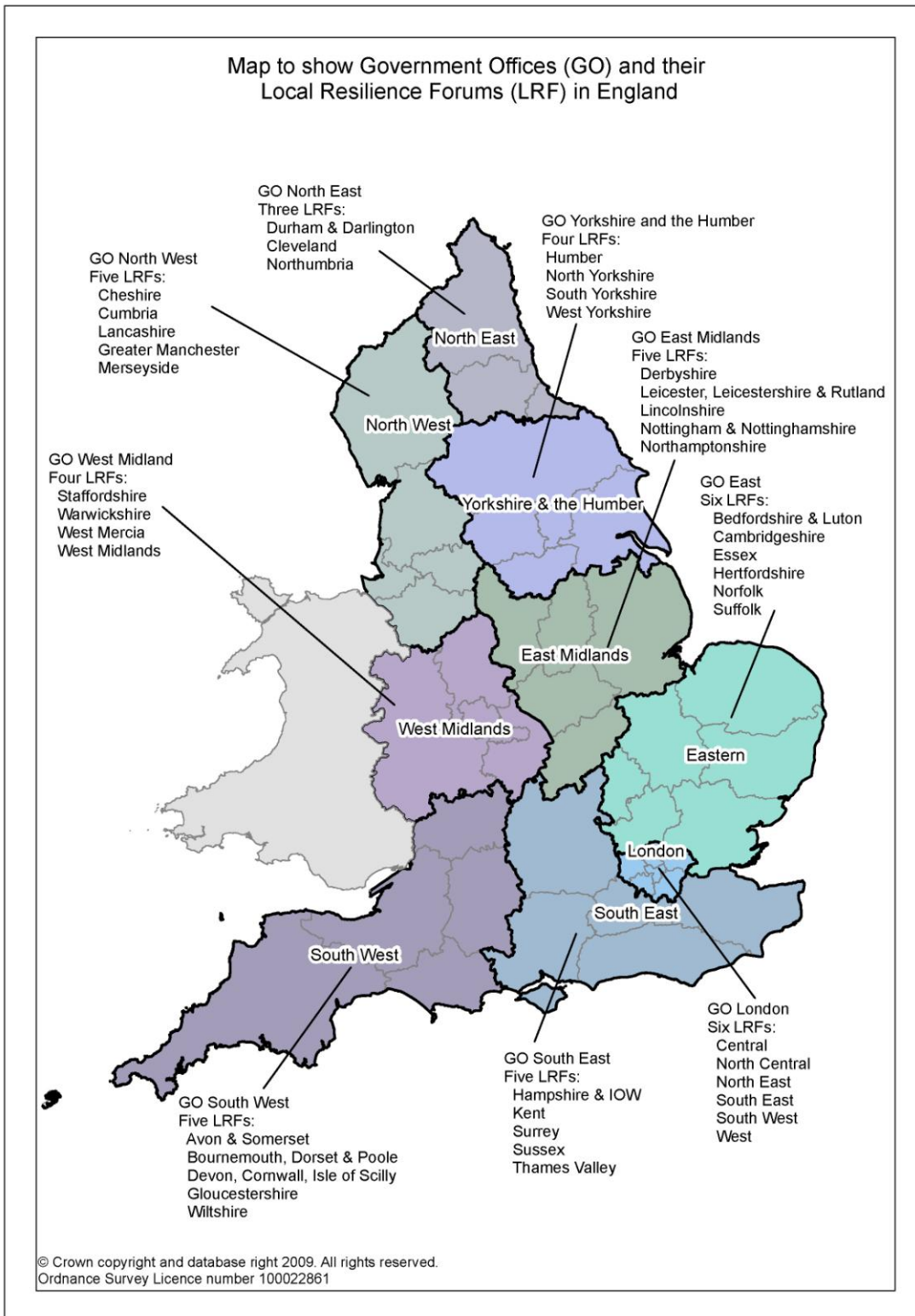
Recommendation 92: Local Resilience Forums should evaluate and share lessons from both the response and recovery phases to inform their planning for future emergencies.

The responses indicated this was standard practice but that some LRFs are incorporating the process into their plans to formalise the arrangements.

West Mercia (WM) commenced this process in September 2007, holding its own strategic review, the findings of which have been implemented within the LRF process (WMLRF Taking Stock report).

Northumbria LRF completed a multi-agency debrief report on severe weather and associated flooding.

Hertfordshire LRF recognised the importance of sharing lessons identified and has held the Hertfordshire Resilience Conference for a number of years. A recommendations database has been established, where they are allocated to appropriate groups to action.



Picture 16: illustration of the Government Office regions and Local Resilience Forums which fall within them

PART THREE: PROGRESS AGAINST ALL PITT RECOMMENDATIONS

The tables below give a report of progress made against each Pitt Review recommendation. Further explanation of the markings in the status column is below:

- **Implemented.** Action as specified in the Government's response to the Pitt review completed.
- **Implemented: Ongoing work continuing.** Significant action taken or changes made in line with our response to the Pitt Review. Further or ongoing work being undertaken to apply or monitor action taken.
- **Implemented: Subject to Parliamentary Procedure.** Recommendations relate to proposals contained in the Flood and Water Management Bill and are dependent on its passage through Parliament.
- **Ongoing: On track for future date.** Action taken to deliver a body of work at a specific time
- **Rescheduled: Work ongoing.** Work delivery rescheduled from timelines published in the Government's response to the Pitt Review.

KNOWING WHERE AND WHEN IT WILL FLOOD

Pitt Recommendation	Summary of progress	Status
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	<p>The Government continues to demonstrate the importance of climate change adaptation and mitigation.</p> <p>Internationally, the Government intends to be a high profile advocate for deep and rapid cuts in the emissions that cause the problem of climate change. The UK has already taken significant domestic action towards a low carbon economy, along with EU partners, and worked hard to secure the vital global agreement in the Copenhagen talks in December 2009 to ensure that the world is on track to avoid dangerous climate change.</p>	Implemented: Ongoing work continuing

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
	<p>Domestically, the UK has introduced a legally binding long-term framework, through the Climate Change Act 2008, to cut emissions by at least 80% by 2050. The Act also introduced consecutive five year carbon budgets which will set the trajectory to the 2050 target. The first three budgets have been set and require a reduction of at least 34% (by 2018-22) in our greenhouse gas emissions against 1990 levels. The emissions reductions required to meet these budgets will be delivered through the implementation of the Low Carbon Transition Plan, published in July 2009. This sets out the Government's proposals and policies for meeting the budgets as required under the Climate Change Act.</p> <p>In relation to domestic adaptation, by implementing commitments under the Climate Change Act, we are putting in place a number of work streams which will feed into the development of our first statutory programme. These include work on the Local Government Performance Framework, the publication of the first Departmental Adaptation Plans, which should be published in Spring 2010, and the National Climate Change Risk Assessment.</p> <p>To review and oversee the work of the National Climate Change Risk Assessment and Statutory Adaptation Plan we have set up an Adaptation Sub-Committee (ASC) to the independent Committee on Climate Change.</p>	

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>The Environment Agency's strategic role is defined and embedded in the provisions of the Flood and Water Management Bill, which was introduced into Parliament on 19 November 2009.</p> <p>The Environment Agency continues to demonstrate its strategic role in advance of legislation and is working more closely with the Local Government Association, individual authorities and other stakeholders on flood risk management and its investment strategy. Its 'Flooding in England' report was published in the summer, bringing together the latest scientific and engineering knowledge to understand the wider risks from flooding at a high level as well as describing in more detail the risks of flooding from rivers and the sea.</p> <p>http://www.environment-agency.gov.uk/research/library/publications/108660.aspx</p> <p>This report underpins future plans for investment in flood risk management as well as helping to work with partners to protect the public and property from floods more effectively. The publication of the Long Term Investment Strategy (recommendation 24) sets out how flood risk might be best managed and funded over the medium to long term. The Environment Agency has also provided guidance to its local teams on how to engage and support local authorities in the development of Local Flood Risk Partnerships.</p>	<p>Implemented: Subject of Parliamentary Procedure</p>

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
<p>3 The Met Office should continue to improve its forecasting and predicting methods to a level which meets the needs of emergency responders</p>	<p>The Met Office is continuing to make advances in its forecasting methods. For example, as committed, it completed in September 2009, its report on the feasibility and benefits of using radar-derived winds to support the forecasting of severe precipitation, as well as demonstrating the capability to produce high-resolution probabilistic forecasts. Furthermore, it is on target to roll out the operational use of the thunderstorm resolving model (with 1.5 km resolution) by June 2010.</p> <p>The Met Office work on the use of radar-derived winds has helpfully illustrated where further work is necessary prior to full implementation. The September 2009 report showed that, after overcoming some quality control issues, the Met Office demonstrated its ability to assimilate data into the prototype 1.5 km resolution model, and that this had an impact on the forecast in a number of case studies. This work has, however, also demonstrated the need to optimise the use of this new data source without losing the benefit of existing data. Implementing the use of radar-derived winds now would increase the cost of assimilation five-fold. In addition, there is a significant risk that, without further optimisation, any errors would be compounded.</p> <p>The Met Office will continue to evaluate and refine this work against the current operational system in a trial from March 2010, with implementation now expected in September 2010.</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>The Environment Agency remains committed to further developing its tools and techniques for predicting and modelling river flooding. The Environment Agency already takes an approach to predicting and modelling river flooding that considers climate change for the whole lifetime of assets. For river schemes this means factoring in a 10 per cent increase in river flows up to 2025 and a 20 per cent increase in flows beyond that.</p> <p>The Environment Agency, Defra, Department for Communities and local Government and Welsh Assembly Government are working together to revise existing guidance using the research from UK Climate Projections 2009. Initial findings shows broadly that the current guidance is still extremely relevant and is a good representation of future change for many areas.</p> <p>In addition, a comprehensive programme of research and development is underway that will produce options for further refinement and improvement of predicting and modelling river flooding.</p> <p>For example:</p> <ul style="list-style-type: none"> ○ Projects are underway to better understand aspects of rainfall and radar accuracy; ○ The Agency is investigating the use and communication of probabilistic river flood forecasting; ○ The Agency is also conducting a review aimed at 	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
	<p>improving probabilistic modelling capabilities. This will help move towards probabilistic flood modelling by enabling increased confidence in outputs. Interim findings to develop and demonstrate practical methods for validating results from probabilistic flood models will be completed in mid 2010. Parallel work is developing and testing practical methods for local probabilistic flood risk assessments;</p> <ul style="list-style-type: none"> ○ The Agency is reviewing methodologies for estimating flood peaks and hydrographs for small catchments. By the end of 2011 the intention is to improve existing techniques or develop new tools to model flows in small catchments; ○ The benchmarking tests of river and floodplain modelling methods are due in February 2010, which is a slip from December 2009; and, ○ A further science project on the `Spatial Coherence of Widespread Flooding` has demonstrated that it is technically possible to better understand the spatial nature of flood risk. The Agency will assess what practical outputs can be produced and report in Spring 2010, this is a shift from the October 2009 date reported in June. 	
<p>5 The Environment Agency should work with partners to urgently take forward work to develop tools and techniques to model surface water flooding</p>	<p>The Environment Agency has worked closely with the six first edition Surface Water Management Plans (SWMPs), providing flood risk advice and data. These plans have now been completed. The Agency has also supported Defra in the prioritisation of possible further SWMPs, identifying 77</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
	<p>new locations which were announced by Defra in August 2009 as part of the £16m surface water funding package.</p> <p>The Agency is putting in place a national process to collect, digitise and store historic data on surface water flooding, which acknowledges gaps in knowledge in historic surface water flooding events.</p> <p>The Agency is on track to refine surface water maps and complete third generation surface water map versions by 31 December 2010.</p>	
<p>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</p>	<p>The Environment Agency and Met Office, through the Floods Forecasting Centre (FFC), are making good progress towards forecasting, modelling and warning for all sources of flooding.</p> <p>The FFC will deliver a new river forecasting model for England and Wales that can forecast to a greater resolution up to 5 days in advance. This will bring significant benefits in that it will allow consistent forecasting across regions with much longer lead times, and will enable forecasts to be produced for river catchments that are not currently gauged. (See Recommendation 4)</p> <p>For surface water currently an alerting service is provided to Category 1 and 2 responders. With the launch of the new warning codes in Spring 2010, the Agency are aiming to share information on the potential for surface water</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
	<p>problems to the public, through a daily forecast statement on the web. Significant further work is needed through 2010-11 to develop a more comprehensive forecasting and warning approach for surface water, due to the relative complexity and uncertainty compared to river and coastal flooding. This work is being addressed through current science studies, the first phase of which is due in December this year, with pilot testing being carried out next year.</p> <p>The FFC is working on defining a future strategy for itself that will identify the role it will play beyond its current remit of March 2011. Proposals and a business case are being developed now which will be put to both the Agency and Met Office to ensure that the strategy supports a long-term mandate for the Centre that can be signed-up to by both organisations.</p>	

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REDUCING THE RISK OF FLOODING AND ITS IMPACT

Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>The update of the PPS25 Practice Guide was published on 7 December. Keeping the Practice Guide up to date reflects the Government's commitment to ensuring the approach to planning and flood risk in PPS25 is understood and effectively applied on the ground. This is an important aspect both in our response to the Pitt Review, and because it forms part of the Government's wider <i>Making Space for Water</i> strategy.</p>	<p>Implemented</p>
<p>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</p>	<p>As part of the Government's commitment to ensuring the policy in PPS25 works as effectively as possible, the Department for Communities and Local Government published proposals for consultation on 11 August for making some limited amendments to PPS25 to clarify the application of the policy to essential infrastructure, including water and sewage treatment works, emergency services facilities, certain bulk storage facilities, wind turbines and the identification of functional floodplains. The consultation period closed on 3 November. Following consideration of the responses to the consultation, the aim is to publish an amended version of PPS25 in early 2010.</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
<p>9 Householders should no longer be able to lay impermeable surfaces as of right on front gardens and the Government should consult on extending this to back gardens and business premises</p>	<p>The Government recently consulted on proposals to introduce planning regulation of hard-surfacing in relation to certain non-domestic land uses (including shops, offices, institutions and industry).</p> <p>An evaluation of consultation representations, alongside a Government response on the outcome of consultation, will be published on the Department for Communities and Local Government's (CLG) website in due course- resultant changes to legislation implemented in April 2010.</p> <p>We have already reported completed action in relation to front gardens. For back gardens, local authorities already have powers to prevent the laying of impermeable surfaces where it poses a local problem via Article 4 of the <i>Town and Country Planning (General Permitted Development) Order 1995</i>. CLG has recently consulted on proposals to simplify the process by which Article 4 Directions are made by local authorities to facilitate their use where necessary. Any ensuing legislation is expected in April 2010.</p>	<p>Implemented</p>
<p>10 The automatic right to connect surface water drainage of new developments to the sewerage system should be removed</p>	<p>Removal of the automatic right to connect surface water drainage of new developments to the sewerage system is contained in the Flood and Water Management Bill, which was introduced on 19 November.</p>	<p>Implemented: Subject to Parliamentary Procedure</p>
<p>11 Building Regulations should be revised to ensure that all new or refurbished buildings in high flood-risk areas are flood-resistant or resilient</p>	<p>We expect that PPS25 Development and Flood Risk Practice Guide will help to deliver flood resilient and resistant buildings where needed. This points to the detailed guidance published jointly with Defra and the</p>	<p>Rescheduled: Work ongoing</p>

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Pitt Recommendation	Summary of progress	Status
	<p>Environment Agency in Improving the Flood Performance of New Buildings: flood resilient construction as a means of ensuring buildings are constructed to mitigate the risks associated with flooding. We are also working to introduce additional guidance on flood resilience in new buildings in 2010.</p> <p>Meanwhile, we continue to take forward policy development, including on flood resilience and resistance, in preparation for a wider public consultation on Parts A and C as set out in the Future of Building Control – Implementation Plan. This consultation will now occur in the latter half of 2011/12, rather than in Summer 2009 as originally planned to allow for further policy and evidence base development.</p> <p>In advance of this, we will also be consulting in the Spring of 2010 on issues that might be reflected in future flood performance standards for new buildings and repairs and how they might be incorporated in the Building Regulations. This consultation will also inform decisions on any legislative changes that may be needed in advance of those planned in the <i>Future of Building Control</i>.</p>	
<p>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</p>	<p>Government action reported complete in June 2009. Our Government response said this would be addressed through a grant scheme for resilience measures for households at risk of flooding in areas unlikely to benefit from a Community scheme.</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendation	Summary of progress	Status
	<p>First phase of grants allocated and second round of applications invited.</p>	
<p>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</p>	<p>Local authorities have a duty under the Civil Contingencies Act to promote business continuity to businesses. The statutory guidance highlights the risk of flooding. The National Risk Register (published in August 2008) also emphasised the risks posed by flooding.</p> <p>Updates from local authorities on this recommendation are contained in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>14 Local authorities should lead on the management of local flood risk, with the support of the relevant organisations</p>	<p>Following our analysis of responses received on the draft Flood and Water Management Bill, which set out the roles and responsibilities for local authorities to address surface water flooding, discussion with stakeholders and consideration of comments made by the Environment, Food and Rural Affairs Committee, we developed revised proposals for legislation relating to the lead role for local authorities and working arrangements with other parties.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	<p>Implemented: Subject to Parliamentary Procedure</p>
<p>15 Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility</p>	<p>Defra and the Local Government Association (LGA) have been working together to support local authorities. The LGA have developed new information and advice for local authorities on their website. In October 2009 Defra and the Environment Agency commissioned the development of an information portal which will act as a hub for information</p>	<p>Implemented: Subject to Parliamentary Procedure</p>

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	<p>and communications for local authorities. There has been ongoing work with local authorities and other partners looking at best practices approaches for data exchange.</p> <p>Defra has made £5m available for authorities to deliver quick wins to positively tackle local flood risk problems. Bids from local authorities are being assessed and notifications of awards will be made early 2010. Funding will commence in April 2010 with actions completed by March 2011.</p> <p>Guidance on information sharing between partners is also contained in the revised Surface Water Management Plan guidance which will be published early in 2010. Launch of an information portal for local authorities is expected in spring 2010.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	
<p>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</p>	<p>Government has allocated £9.7 m to 77 local authorities at high risk from surface water flooding to help collate and map the main flood risk through the production of a Surface Water Management Plan in identified high risk settlements.</p> <p>Following from research commissioned by Defra and the Environment Agency, an asset tool has been developed to help local authorities map their drainage assets, including a</p>	<p>Implemented: Subject to Parliamentary Procedure</p>

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	<p>record of their ownership and condition. Guidelines on the first phase of this local authority asset tool will be available early in 2010.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	
<p>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</p>	<p>Following analysis of consultation responses to the draft Flood and Water Management Bill, which set out the roles and responsibilities for local authorities to address surface water flooding, and consideration of comments made by Environment, Food and Rural Affairs Committee, we have developed revised proposals with stakeholders for legislation in relation to the duty to co-operate.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	<p>Implemented: Subject to Parliamentary Procedure</p>
<p>18 Local Surface Water Management Plans, as set out under PPS25 and coordinated by local authorities, should provide the basis for managing all local flood risk</p>	<p>The six first edition Surface Water Management Plan (SWMP) final reports were finalised in October 2009. The results of these plans informed the revised SWMP guidance which will be published early in 2010.</p> <p>Further SWMPs will be supported by the further funding we announced in August 2009 of £9.7m allocated to 77 local authorities, at risk from surface water flooding.</p> <p>Updates from local authorities for this recommendation are contained in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>19 Local authorities should assess and, if</p>	<p>Defra commissioned a short scoping study to examine a</p>	<p>Implemented:</p>

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<p>appropriate, enhance their technical capabilities to deliver a wide range of responsibilities in relation to local flood risk management</p>	<p>range of options to increase capacity within local authorities which reported initial findings in August 2009. A Capacity Building Steering Group has been established and met in July 2009 with local authorities and others to develop a long term programme for capacity building.</p> <p>As an initial part of this programme Defra has provided funding for about 25 participants from local authorities to undertake the two year EA Flood and Coastal Risk Management Foundation Degree starting in September 2009.</p> <p>Work is underway to develop a National Vocational Qualification level 2/3 course, aimed at 16 year olds or the long term unemployed, to cover Flood Risk Management skills. The aim is to launch this in September 2010. A longer term strategy for capacity building has been developed and agreed with local authorities to take forward and implement in 2010. £1m has also been made available for training, data and other tools to help all local authorities manage flood risk.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	<p>Ongoing work continuing</p>
<p>20 The Government should resolve the issue of which organisations should be responsible for the ownership and maintenance of sustainable drainage systems</p>	<p>Full proposals on Sustainable Drainage Systems, including unitary and county local authorities to take on ownership and maintenance for them, are contained in the Flood and Water Management Bill, which was introduced into</p>	<p>Implemented: Subject to Parliamentary Procedure</p>

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<p>21 Defra should work with Ofwat and the water industry to explore how appropriate risk-based standards for public sewerage systems can be achieved</p>	<p>Parliament on 19 November.</p> <p>The Government has worked with Ofwat (the Water Services Regulation Authority) to explore risk based standards for public sewerage systems.</p> <p>The Flood and Water Management Bill also includes provision for the Secretary of State to “publish” standards for new sewers so that no connection to the public sewer will be allowed unless they are built to the required standards.</p>	<p>Implemented: Subject to Parliamentary Procedure</p>
<p>22 As part of the forthcoming and subsequent water industry pricing reviews, Ofwat should give appropriate priority to proposals for investment in the existing sewerage network to deal with increasing flood risk</p>	<p>Ofwat (the Water Services Regulation Authority) has reviewed the level of investment proposed by water and sewerage companies in their business plans. Ofwat has set price limits for the period 2010-2015, and has published final determinations in November 2009. The new price limits will take effect in April 2010. Investment was set at a level which allowed companies to continue to reduce the numbers of properties at the highest risk of flooding where this was supported by customers. Investment allows some companies to reduce the risk of external flooding or deal with properties with a lower risk of flooding. Investment has also been included for mitigation work and modelling. Companies have until 26 January 2010 to decide whether to accept the price limits or appeal to the Competition Commission.</p>	<p>Implemented</p>
<p>23 The Government should commit to a strategic long-term approach to its investment in flood risk management, planning up to 25 years</p>	<p>Government action reported complete in June 2009</p>	<p>Implemented</p>

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ahead		
24 The Government should develop a scheme which allows and encourages local communities to invest in flood risk management measures	Government action reported complete in June 2009	Implemented
25 The Environment Agency should maintain its existing risk-based approach to levels of maintenance and this should be supported by published schedules of works for each local authority area	<p>All Environment Agency areas have sent hard or electronic copies of work schedule information to partner organisations, or have made them available to the public on request. The Agency has now added this information to the Regional pages of its website.</p> <p>Work is underway on preparing System Asset Management Plans for 1400 of the Agency's highest risk river systems. The Agency has completed 387 of these plans and is on target to deliver the remainder by Spring 2010.</p> <p>43 medium risk systems and 24 low risk systems have been completed. The Agency is on track to deliver the remainder by the 2011 deadline.</p> <p>The draft version of the report on performance based asset management was delayed from the August 2009 deadline, but is now being reviewed by Agency staff. The report will be available on its website in early 2010.</p>	Implemented: Ongoing work continuing
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	A leaflet describing the best way to use sandbags has been published on the Environment Agency's website as well as promoted to local authorities and Local Resilience Forums in briefings. Sandbags are not the most effective	Implemented

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wholly to local discretion	<p>method of property flood protection and therefore further guidance has been prepared outlining more reliable methods of protection.</p> <p>The Agency has published additional guidance on self help home protection measures for householders, businesses and building contractors who may fit them.</p>	
27 Defra, the Environment Agency and Natural England should work with partners to establish a programme through Catchment Flood Management Plans and Shoreline Management Plans to achieve greater working with natural processes	<p>A working group including Defra, the Environment Agency and Natural England is advancing its programme of work through Catchment Flood Management Plans (CFMPs) and Shoreline Management Plans to achieve greater working with natural processes. For example, contracts have been signed on all three Defra land management demonstration projects, which look to promote the contribution land management practices makes to managing local flood risk. These are progressing well. Defra evaluation of the first round of CFMPs has begun.</p> <p>A report on the potential environmental benefits of flood storage areas has been published. Defra's new appraisal guidance has also been published encouraging authorities to investigate and value the benefits of solutions that work with natural processes.</p>	Implemented: Ongoing work continuing
28 The forthcoming flooding legislation should be a single unifying Act that addresses all sources of flooding, clarifies responsibilities and facilitates flood risk management	A single unifying Act will not be achieved in the current Flood and Water Management Bill. However, Defra will start the process of achieving a single unifying Act in terms of consolidating legislation on reservoirs alongside the Flood and Water Management Bill, as well as consolidating	Ongoing: to next Parliamentary session

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	<p>the legislation on the roles and responsibilities on flood and coastal erosion risk management (in particular from the Environment Act 1995 the Water Resources Act 1991, the Coast Protection Act 1949, the Land Drainage Act 1991, the regulations implementing the EU Floods Directive and the relevant measures in the Flood and Water Management Bill), as soon as possible after the latter becomes law.</p>	
<p>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</p>	<p>The 'Access to Insurance Working Group' has been established to improve social housing tenants' access to home contents insurance, focusing on the role of social landlords in increasing demand. This encompasses the programme of work being undertaken by Department for Work and Pensions, HM Treasury and the Association of British Insurers (ABI) to deliver Pitt recommendations 29, 31 and 32.</p> <p>The group aims to increase the number of social landlords offering a tenants contents insurance (TCI) scheme and to encourage housing officers to promote such schemes.</p> <p>The ABI is currently working to set targets for availability. In July the ABI launched an 'access to insurance' web micro-site, to provide a one-stop information hub on TCI. The ABI has also embarked on a series of regional workshops to promote the benefits of TCI schemes to social landlords.</p>	<p>Implemented: Ongoing work continuing</p>

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	<p>The Financial Inclusion Champions initiative includes a pilot project in the North East and North West to examine whether take-up of home contents insurance among low income households can be stimulated, on a cost-effective basis, by grass-roots “tenant engagement groups” promoting TCI directly to new tenants.</p> <p>In addition, the ABI is implementing its plans to engage in practical activity to promote greater take-up of insurance by people on lower incomes, supported by a stakeholder advisory group that consists of housing organisations, Government departments and regulators. This work has established a one-stop information website on contents insurance for people in social housing, and is being expanded to include other low-income groups where there is evidence of barriers that affect access to insurance.</p> <p>The ABI has also developed a good practice guide for housing officers to improve awareness among landlords and tenants. The content has been informed by a series of regional workshops involving housing associations and local authorities that the ABI is co-hosting with its members. These events were also supported by the Department of Work and Pensions. Events this year have been held in Manchester, London, Cardiff and Birmingham, and further events are planned in Glasgow, Belfast and Fareham.</p>	
30 The Government should review and update the	The work of the ‘Access to Insurance Working Group’	Ongoing: on track

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Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>described above overlaps with the delivery of recommendation 30. The programme is aligned with the work of the Government's Financial Inclusion Champions initiative and aims to ensure social housing tenants can access the cover they would need in case for example, of a fire or break-in at an affordable price.</p> <p>HM Treasury and the Department of Work and Pensions have commissioned Financial Inclusion Champions to host a number of pilot based 'Tenant Engagement Groups' (TEGs), who will work with housing associations, promoting the benefits of home contents insurance to tenants and community groups face-to-face and taking the first steps in developing a training tool for housing officers.</p> <p>The Tenants Services Authority (TSA) contributed to Zurich Municipal's (ZM) guidance on business resilience and risk management, which is one example of what is available on the market. Building on this, ZM has used its sector knowledge to create insurance products for tenants, for example ZM's Tenants' home contents insurance scheme which offers tenants in social housing the opportunity to purchase an affordable insurance policy. The policy provides tenants, shared owners and leaseholders with cover to protect their belongings against flooding (amongst other things) with a range of payment options to suit them.</p> <p>By April 2010, the TSA should be in a position to begin to</p>	<p>for December 2010</p>

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Pitt Recommendation	Summary of progress	Status
	consider constructive guidance for tenants that will not only advise on what good insurance for social tenants looks like, but on which products are available and possibly where tenants can seek advice on where they can obtain it.	
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	Following receipt of the National Flood Risk Assessment report from the Environment Agency in May, the Association of British Insurers recently asked its members how they were responding to this recommendation. All insurers who responded are taking steps to alert their customers to the risk of flooding and how to mitigate the risk. They are doing this through their websites, renewal notices and other customer documents. Some insurers report they even discuss flood risk mitigation with customers that have previously been flooded or are identified as being at higher risk. As almost 1 in 6 properties are thought to be at risk of flooding, insurers are providing information on flood risk and mitigation to all their customers rather than trying to target them individually.	Implemented: Ongoing work continuing
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	Action reported complete in June 2009	Implemented

BEING RESCUED AND CARED FOR DURING AN EMERGENCY

Pitt Recommendations	Summary of progress	Status
<p>33 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</p>	<p>The Extreme Rainfall Alert Service is now fully operational.</p> <p>The Environment Agency and Met Office have spoken with partners who raised concern about the amount of separate pieces of information being received. As a result they have started an integration project reviewing how to best meet the customers' needs</p> <p>The requirement to provide more tailored flood warnings for infrastructure has been progressed through a pilot project with Western Power Distribution which relates their critical assets to flood warnings in real-time. A working group has been established with the Energy Networks Association (ENA) to plan the roll-out of this service to other ENA members and other infrastructure operators in due course. ENA members should have full access to the service by the end of March 2010.</p> <p>The Environment Agency is currently producing a roll-out strategy which will be risk based to determine which other infrastructure sectors will be offered the</p>	<p>Implemented: Ongoing work continuing</p>

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Pitt Recommendations	Summary of progress	Status
	<p>service during 2010/11.</p> <p>Further development of this service, including information on depths and velocities, is on schedule for delivery by 2013.</p>	
<p>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</p>	<p>See progress report under Recommendation 4.</p> <p>As part of the new flood warning service, the Environment Agency is developing a Partners Incident Advisory Service. They have talked with partners at Local Resilience Forums and are using their feedback to improve the service. The Agency aims to provide more local information via a team of on call Flood Incident Advisors and training on the new service will be provided for their partners.</p> <p>The joint Agency, Met Office and Flood Forecasting Centre project (Integrating Flood Services for Partners) has taken on the remit of assessing the current service to partners and recommending how this can be improved in the future.</p>	<p>Implemented: Ongoing work continuing</p>
<p>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</p>	<p>Government action reported complete in June 2009</p>	<p>Implemented</p>
<p>36 The Environment Agency should make relevant flood visualisation data, held in electronic map</p>	<p>The Environment Agency's visualisation project continues to develop and expand the tools available</p>	<p>Implemented: Ongoing work</p>

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Pitt Recommendations	Summary of progress	Status
<p>format, available online to Gold and Silver Commands</p>	<p>to help manage any form of incident. The Agency's visualisation capability has increased, through making relevant information available to professional partners covering Flood Zones, areas susceptible to surface water flooding and flood warnings. The programme of delivery up to 2012 has been prepared, with four distinct work themes; (1) Mapping, (2) Data Management, (3) Communication and (4) Collaboration. The Agency can provide information on the areas at risk of flooding to Gold and Silver Commands, in electronic map format through connections to their network.</p> <p>The Incident Management System is being developed through a series of improvements to the use of the technology employed during incidents. The programme of development is described in Recommendation 37, with the four work streams making improvements to overall capacity, and visualisations being integrated into the wider Incident Management System.</p>	<p>continuing</p>
<p>37 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</p>	<p>The Environment Agency is exploring with partners how they will use the visualisation information which they provide, using examples of current capability. The Agency can provide high level information in all areas at risk, and more detailed information in areas which are at significant risk. Their development programme will use the National Resilience Extranet</p>	<p>Implemented: Ongoing work continuing</p>

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	<p>to share such information with partners.</p> <p>The Agency continues to develop flood information to meet the requirements of flood responders and professional partners, using models which can provide information on depths and timings of flood events.</p>	
<p>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</p>	<p>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, 'Mutual Aid – A short guide for local authorities', which was published in December 2008.</p> <p>Examples of action taken by local authorities under this recommendation are contained in Part 2 of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>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 as necessary by a statutory duty</p>	<p>The Government is continuing to assess and put in place capacity for flood rescue. For example:</p> <ul style="list-style-type: none"> • A draft of the new Flood Rescue Concept of Operations is due shortly. This will include standard operating procedures, asset standards, communication standards and will define the national coordination of assets. It will ensure strategic use is made of limited specialist resources. Greater clarity and certainty will be established in respect of 	<p>Ongoing: On track for March 2011</p>

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	<p>specialist flood rescue operations during a major flood event, and confidence will be improved within 'Gold Commands' about matching the deployment of flood rescue with requirements. This will ensure that the best use is made of existing and future assets.</p> <ul style="list-style-type: none"> • A gap analysis has been completed which demonstrates where current flood rescue capability is and where, and what types of reinforcements are needed. This uses detailed mapping of a worst plausible flooding scenario – an East Coast Inundation, and establishes the flood rescue requirement to deal with such an event. • Developing a fully-fledged National Asset Register, based on submissions from all flood rescue providers. • A procurement framework for flood rescue equipment that meets the standards we have set was completed in November 2009. It is being set up by FireBuy Ltd, a Non-Departmental Public Body who deliver national level fire and rescue service procurement. 	
<p>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</p>	<p>We propose to amend guidance supporting the Security and Emergency Measures (1998) Directions which are drawn from the Water Industry Act. Changes will mean that the current 10 litres per day will be increased to 20 litres per day, after five days.</p>	<p>Implemented</p>

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Pitt Recommendations	Summary of progress	Status
<p>41 Upper tier local authorities should be the lead responders in relation to multi-agency planning for severe weather emergencies at the local level and for triggering multi-agency arrangements in response to severe weather warnings and local impact assessments.</p>	<p>Ongoing local implementation supported by the revised 'Emergency Response and Recovery Guidance' which states that county and unitary local authorities should be lead responders for multi-agency severe weather emergency planning.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>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</p>	<p>Ongoing local implementation. This is supported by the revised 'Emergency Response and Recovery Guidance' 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.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>43 Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding</p>	<p>The amended 'Emergency Response and Recovery Guidance' 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.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>44 Category 1 and 2 responders should assess the effectiveness of their emergency response facilities, including flexible accommodation, IT</p>	<p>Ongoing local implementation, supported by Government guidance. The 'Emergency Response and Recovery Guidance' was updated to include</p>	<p>Implemented: Ongoing work continuing</p>

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<p>and communications systems, and undertake any necessary improvement works</p>	<p>these issues. A Civil Protection Self Assessment Tool for responders is expected early in 2010 and a peer review tool for Local Resilience Forums in March 2010 (Both were due for delivery in 2009, but were delayed due to the need to respond to swine flu).</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	
<p>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</p>	<p>The Highways Agency has, with Local Resilience Forums, already identified motorways and trunk roads vulnerable to flooding and recruited emergency planning managers for each Highways Agency region. It has also considered the potential for better warnings, strategic road clearance and ways to support people who become stranded and has taken the following action:</p> <p>Following the 2007 flooding, the Highways Agency website increased in capacity, and fully revised the way warnings are presented. In addition, improvements were made to give advanced warnings on road signage, with the ability to have free text warnings more quickly (which normally required lengthy approval)</p> <p>The Highways Agency has secured funds to enable additional access/egress points to be constructed on the network. Area teams identified suitable locations</p>	<p>Implemented</p>

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	<p>and a programme of work has been developed for 2009/10.</p> <p>Formal arrangements were developed and are in place for emergency customer welfare in association with British Red Cross.</p>	
46 The rail industry, working through Local Resilience Forums, should develop plans to provide emergency welfare support to passengers stranded on the rail network	Government action reported complete in June 2009	Implemented
47 The Ministry of Defence should identify a small number of trained 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	<p>Government action reported complete in June 2009</p> <p>Logistics support and specialists are available through Regional Brigades under Military Aid to Civil Authorities, enabled by the Joint Regional Liaison Officers who are fully engaged at local / regional level for disruptive challenges.</p>	Implemented
48 Central government crisis machinery should always be activated if significant wide-area and high-impact flooding is expected or occurs	<p>No change since June Progress Report. 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 will be clarified in the National Flood Emergency Framework expected June 2010. Finally, nationwide testing of arrangements will happen with Exercise Watermark in 2011.</p>	Implemented: Ongoing work continuing
49 A national flooding exercise should take place at the earliest opportunity in order to test the new	The national flooding exercise, Exercise Watermark, is planned for March 2011. This exercise will test new	Ongoing: on track for March 2011

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arrangements which central government departments are putting into place to deal with flooding and infrastructure emergencies	national arrangements from central Government departments to deal with flooding and infrastructure emergencies. Good progress is being made on developing the strategic objectives and scope of the exercise	

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MAINTAIN POWER AND WATER SUPPLIES AND PROTECTING ESSENTIAL SERVICES

Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>The Cabinet Office's Natural Hazards Team is progressing recommendations 50 to 54, and has begun the systematic programme. A Strategic Framework and Policy Statement was produced in June 2009 and circulated to Government Departments, Regulators, and industry groups for comment. The Framework was published for a wider consultation with these groups and infrastructure owners in November 2009.</p> <p>Work is ongoing to finalise the Framework and develop the programme, in conjunction with implementation of recommendations 51-53.</p>	<p>Implemented: Ongoing work continuing</p>
<p>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</p>	<p>Some sectors have already made good progress in assessing their vulnerability to flooding. The Cabinet Office's Natural Hazards Team is co-ordinating the efforts of the lead Government Departments across all sectors to assess the vulnerability to flooding of their most critical sites. A summary of the analysis, and supporting evidence, will be contained in Sector Resilience Plans. The Government committed to ensure the first versions of these Sector Resilience Plans are in place by end December 2009. This is currently on target.</p>	<p>Ongoing: On track for end December 2009</p>

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	<p>The Environment Agency has been working with national and regional operators of emergency facilities and operational assets to identify sites at risk and advise on appropriate mitigating action. As part of the business plans being developed for the next 5 year pricing period, the Agency is working with economic regulators such as Ofwat (the Water Services Regulation Authority) and Ofgem (the electricity and gas markets regulator) to ensure that investment in managing flood risk is a key priority for utilities in the immediate future.</p> <p>Work will continue in this area in line with the systematic programme established under recommendation 50.</p>	
<p>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</p>	<p>The Sector Resilience Plans will set out what actions have been undertaken since the 2007 floods to build resilience into infrastructure and actions to further improve resilience for the most critical sites that are vulnerable to flooding (see Recommendation 51).</p> <p>Work will continue in this area in line with the systematic programme established under recommendation 50.</p>	<p>Ongoing: On track for end December 2009</p>
<p>53 A specific duty should be placed on economic regulators to build resilience in the critical infrastructure</p>	<p>In our response to the Pitt Review, we acknowledged the time it may take to legislate for a new duty. In the short term we committed to provide guidance to</p>	<p>Implemented: Ongoing work continuing</p>

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	<p>regulators. Initial guidance to encourage resilience building was incorporated within the Strategic Framework and Policy Statement released for comment during the summer. The wider consultation on this document will seek evidence of where further guidance on resilience building is needed for regulators and industry.</p> <p>To follow on from this, the Cabinet Office's Natural Hazards Team is working with lead Government Departments and economic regulators to encourage resilience building by critical infrastructure owners and it will review what further measures are needed to achieve this recommendation.</p>	
<p>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</p>	<p>The work to promote business continuity to improve resilience to natural hazards is ongoing and will be assisted by the Cabinet Office's Natural Hazards Team (see Recommendation 50).</p> <p>If it is considered that a duty should be placed on Category 2 responders, this will be achieved through the Civil Contingencies Act Enhancement Programme. Phase II of the enhancement programme will consider the scope for changes. Although the last progress report said the assessment for scope for changes would report by the end of 2009, this will now culminate in options being put to Ministers in June 2010.</p>	<p>Ongoing: Programme of work over the next year</p>

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Pitt Recommendation	Summary of progress	Status
<p>55 The Government should strengthen and enforce the duty on Category 2 responders to share information on the risks to their infrastructure assets, enabling more effective emergency planning within Local Resilience Forums</p>	<p>The Government is reviewing how to improve the effectiveness of the duties under the Civil Contingencies Act (CCA), including whether existing information sharing duty is sufficient or should be strengthened, in line with the timetable to review the CCA. Draft revision to Chapter 2 (on co-operation) and Chapter 3 (on information sharing) of Emergency Preparedness guidance is being finalised. Consultation began autumn 2009 and the final version will be published early in 2010. Government is also considering whether other duties need to be strengthened or enhanced. Policy development is underway and options will be put to Ministers in June 2010.</p>	<p>Ongoing: Programme of work over the next year</p>
<p>56 The Government should issue clear guidance on expected levels of Category 2 responders' engagement in planning, exercising and response and consider the case for strengthening enforcement arrangements</p>	<p>To clarify guidance on expected levels of category 2 responders' engagement in planning, exercising and response, the Government issued Parts 1 and 2 of 'Expectation and Indicators of Good Practice Set for Category 1 and 2 Responders' in December 2008. Part 3 of 'Expectation and Indicators of Good Practice Set for Category 1 and 2 Responders' was issued summer 2009.</p> <p>Consideration of the need to strengthen enforcement arrangements will be made during the review of the Civil Contingencies Act. Policy development is underway and options will be put to Ministers in June 2010.</p>	<p>Implemented: Ongoing work continuing</p>

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<p>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</p>	<p>The Government has completed reservoir inundation mapping.</p> <p>A protocol for sharing the maps has now been finalised and will be distributed to Local Resilience Forums (LRFs) and reservoir undertakers with the maps. The maps will enable LRFs to start generic reservoir flood planning from December onwards. More detailed maps for highest risk reservoirs will inform site-specific emergency planning arrangements. It is intended that these maps should be made available via the National Resilience Extranet (NRE). LRFs without access to the NRE will be able to access hard copy versions.</p> <p>Guidance and templates for off-site planning, warning and informing have now been finalised, while on-site guidance and templates are in final draft. Both are now available for use by LRFs and reservoir undertakers to assist in the preparation of on-site and off-site reservoir flood plans.</p> <p>The Environment Agency is currently developing a web based search tool for the public. The search tool will allow members of the public to ascertain whether any given location in England or Wales is in a potential inundation zone and to view the outline inundation maps. The Agency intends to make this</p>	<p>Ongoing: on track for December 2009</p>

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	available in the Summer of 2010. In the meantime members of the public can contact their local Environment Agency office for the maps.	
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	Implementation of the Environment Agency's report on dam and reservoir safety will be achieved through the Flood and Water Management Bill, which includes provisions for more risk based regulation of reservoir safety.	Implemented: Subject to Parliamentary Procedure

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BETTER ADVICE AND HELP TO PROTECT FAMILIES AND HOMES

Pitt Recommendation	Summary of progress	Status
<p>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</p>	<p>The Risk and Regulation Advisory Council (RRAC) have concluded their in-depth study of the way different risks are understood and reviewed existing guidance on risk communications. The Council completed its work programme and published guidance to policymakers and to the public on how best to understand, communicate and develop policy for public risk. Although later than intended, findings specific to flooding and community risks were published in December 2009. The Government is already taking forward a number of recommendations from the RRAC's work</p>	Implemented
<p>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 nationally</p> <p>The Environment Agency should work with local responders to raise awareness in flood risk areas and identify a range of mechanisms to warn the public, particularly the vulnerable, in response to flooding</p>	<p>Environment Agency are taking forward a number of initiatives to improve the flood prevention and mitigation advice available to the public.</p> <p>For example:</p> <ul style="list-style-type: none"> ○ A locally focused awareness campaign is being piloted this year. Eight Community Engagement Officers have been recruited to consult and work with residents in Local Resilience Forum (LRF) areas (targeting particularly the vulnerable). This work includes improved ways for the Agency to 	Ongoing: On track for December 2009

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	<p>communicate flood risk to them and factors that incentivise mitigating action.</p> <ul style="list-style-type: none"> ○ Agency is working on a coordinated campaign to raise awareness of its flood warning codes. They have also contributed to the Cabinet Office's guidance for LRFs, which advises them on how to warn and inform the public. ○ Progress has been made towards extending the Floodline service. It will provide local authorities with the capability of directly managing their own information and for this information to be available to Floodline callers. ○ Through the new awareness approach the Agency is on track to assist in the production of 120 Community Flood Plans during this financial year. 	
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 will have completed work to use the opt-out approach to extending direct flood warning services by February 2010.	Ongoing: On track for February 2010.
63 Flood risk should be made part of the mandatory search requirements when people buy property, and should form part of Home Information Packs	Government action reported complete in June 2009	Implemented
64 Local Resilience Forums should continue to	Ongoing local implementation, which is supported by	Implemented:

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<p>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</p>	<p>existing emergency preparedness guidance that includes door-knocking as one of the methods of warning people. Responders will need to assess individual circumstances taking into account health and safety and resource implications.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	<p>Ongoing work continuing</p>
<p>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</p>	<p>The extensive work done in preparation for the Environment Agency's new flood warning codes has involved surveys and consultations with members of the public, businesses and flood response partners. This understanding has been used to design a more user-intuitive service which better reflects how people behave. The Agency are currently developing Floodline Warnings Direct messages and tailoring them based upon the findings from this research. This will give customers the opportunity to select what level of information they want to receive. New Flood Warning Codes will be introduced Summer 2010, with improvements to the website on track for completion by 2011.</p>	<p>Ongoing: on track for 2011</p>
<p>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</p>	<p>Ongoing local implementation supported by the revised 'Emergency Response and Recovery Guidance' sets out that local authority contact centres should take the lead in dealing with general enquiries during and after major flooding.</p>	<p>Implemented: Ongoing work continuing</p>

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		Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.	
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	<p>The Cabinet Office recognises that it is important for information to be available in many forms and where the public would expect to find it. Following advice issued by the Cabinet Office earlier in the year, action rests locally.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	Implemented: Ongoing work continuing
68	Council leaders and chief executives should play a prominent role in public reassurance and advice through the local media during a flooding emergency, as part of a coordinated effort overseen by Gold Commanders	<p>Ongoing local implementation. Many council leaders and chief executives are now well versed in providing public reassurance and advice, working with both local and national media. To strengthen local implementation, the Government provided guidance on this as part of the updated 'Emergency Response and Recovery Guidance'.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	Implemented: Ongoing work continuing
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	In our response to the Pitt Review we acknowledged this recommendation was up to individuals, but would be supported by communication campaigns taken forward by the Environment Agency. The Agency has done this through their new 'Preparing for a Flood' guide, which promotes how flood kits should	Implemented

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	<p>be made up. To date, more than 270,000 copies have been distributed.</p> <p>Furthermore, each customer registering for the Environment Agency Floodline Warnings Direct system is sent information included instructions on how to make a flood kit.</p> <p>The Agency will be mailing all 'high-risk' properties as a result of the flood warning service changes and will include advice on flood preparation.</p> <p>Through the Agency's awareness raising work, communities at risk of flooding are being encouraged to produce a flood kit. This is through direct advice, media channels, Agency publications and its website and also the development of community flood plans.</p>	
<p>70 The Government should establish a programme to 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</p>	<p>Cabinet Office has built upon the research and stakeholder engagement work carried out earlier in 2009, and their community resilience expertise is already benefiting other key areas of resilience preparedness work. For example, they hosted workshops on the development of the National Risk Register (NRR), using key contacts from their community resilience stakeholder database, which will help to ensure that future versions of the NRR meet the objective of increasing the awareness of risk amongst communities.</p>	<p>Rescheduled: Work ongoing</p>

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	<p>Resources within the Civil Contingencies Secretariat were prioritised to work on the Government response to the swine flu outbreak from April to October 2009. Therefore, the community resilience strategic framework and guidance will not be published until spring 2010, subject to ministerial approval.</p>	

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RECOVERY

Pitt Recommendation	Summary of progress	Status
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	Government action reported complete in June 2009	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	<p>The publication 'Planning for the Psychosocial and Mental Health Care of People affected by Major Incidents and Disasters: Interim National Strategic Guidance' was published on 30th July 2009. See link below.</p> <p>This guidance provides best practice in planning, preparing and managing psychosocial and mental health services. This is in response to traumatic events and all types of emergencies resulting in an abnormal situation that poses any threat to the health of the community or in providing services for psychosocial care.</p> <p>http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_103562</p> <p>NHS Strategic Health Authority emergency leads</p>	Implemented

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		have brought this guidance to the attention of local Primary Care Trusts who sit on Local Resilience Forums.	
73	The Government, the Association of British Insurers and other relevant organisations should work together to explore any technological or process improvements that can be made to speed up the drying out and stabilising process of building recovery after a flood	Defra and Communities Local Government have commissioned a desk based study to look at current guidance on speeding up drying out and stabilisation after a flood and how it might be used better. This study is complete. A project is being set up with the Environment Agency and ABI to develop a sign posting document pointing to existing advice on how best to achieve drying out.	Ongoing: on track for spring 2010
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	Guidance has been published and made available (see Recommendation 72). Strategic Health Authorities are currently engaging in work on putting in place monitoring systems. The Health Protection Agency already has national systems in place and these may inform the final systems put in place at the local level.	Ongoing: on track for December 2009
75	For emergencies spanning more than a single local authority area, Government Offices should ensure coherence and coordination, if necessary, between recovery operations	'Emergency Response and Recovery Guidance' (ERR) was updated and published in August 2009. In conjunction with the National Recovery Guidance, ERR contains policy and guidance for all aspects of response and recovery and includes the roles undertaken by the Government Offices for the Regions.	Implemented
76	Local authorities should coordinate a systematic programme of community engagement in their	The National Recovery Guidance contains policy, guidance and case studies on community	Implemented

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<p>area during the recovery phase</p>	<p>engagement during recovery. The Cabinet Offices' Civil Contingencies Secretariat is continuing to actively promote the need for local authorities to plan for post-event community engagement through, for example, the Voluntary Sector Civil Protection Forum. The case studies contained within the National Recovery Guidance highlight the benefits of taking a 'people centred' approach to those leading recovery in local authorities.</p> <p>The Compact is the concordat between central Government and the third sector that sets out a framework for good partnership working. Local compacts operate at the local level. The Compact is presently being refreshed, and Communities and Local Government (CLG) have been working with the Commission for the Compact and the Office of the Third Sector to ensure that the refreshed Compact takes account of this recommendation.</p> <p>The consultation on the refreshed Compact has now ended. CLG included in its formal response to the consultation that the refreshed Compact must enable the Government's commitments made in respect of Pitt Recommendation 76 to be met in full.</p>	
<p>77- National and local Recovery Coordinating Groups 78 should be established from the outset of major</p>	<p>The National Recovery Guidance reinforces the principle of local Recovery Co-ordinating Groups</p>	<p>Implemented: Ongoing work</p>

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<p>emergencies and in due course there should be formal handover from the crisis machinery</p> <p>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</p>	<p>and their role in agreeing 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' (this is awaiting sign off, but a working document is already in operation). The principles are also captured in the updated 'Emergency Response and Recovery' guidance, published August 2009.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	<p>continuing</p>
<p>79 Government Offices, in conjunction with the Local Government Association, should develop arrangements to provide advice and support from experienced organisations to areas dealing with recovery from severe flooding emergencies</p>	<p>The Mutual Aid guidance described in Recommendation 38 addresses this issue and it is for ongoing local implementation. The updated "Emergency Response and Recovery Guidance" published August 2009, also reinforces the requirement for Government Offices and the Local Government Association to make arrangements to provide advice to areas dealing with severe flooding, and obtain support from experienced organisations.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	<p>Implemented: Ongoing work continuing</p>
<p>80 All central government guidance should be updated to reflect the new arrangements for</p>	<p>The National Recovery Guidance covers the new arrangements for recovery, and this is being used</p>	<p>Implemented</p>

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Pitt Recommendation	Summary of progress	Status
recovery and Local Resilience Forums should plan, train and exercise on this basis	by Local Resilience Forums (LRFs) to steer their planning, training and exercising. The updated 'Emergency Response and Recovery Guidance' also reflects the new arrangements for recovery and the need for LRFs to plan, train and exercise on this basis.	
81 There should be an agreed framework, including definitions and timescales, for local central recovery reporting	<p>This is for ongoing local implementation supported by the updated 'Emergency Response and Recovery Guidance'. It will reflect the agreed framework for local and central recovery reporting.</p> <p>Examples of local authorities' approach for this recommendation are contained in Part Two of this report.</p>	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	<p>This is for ongoing local implementation supported by the updated 'Emergency Response and Recovery Guidance' which 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.</p> <p>Examples of what local authorities are doing under this recommendation are contained in Part Two of this report.</p>	Implemented: Ongoing work continuing
83 Local authorities should continue to make arrangements to bear the cost of recovery for all but the most exceptional emergencies, and	Central Government action reported complete in June 2009	Implemented

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
should revisit their reserves and insurance arrangements in light of last summer's floods		
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	Department for Communities and Local Government, Defra and Department for Children Schools and Families (along with Department for Transport who already have a funding scheme in place) have developed principles (and supporting schemes) for recovery funding to provide more certainty for local authorities about the sort of exceptional circumstances where the Government would consider providing support, and the sort of recovery costs that might be met in those circumstances. The funding principles, and links to the funding schemes, are contained in the revised '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	The Government has already updated the National Recovery Guidance to support the role of 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 Review, with a Director in Defra overseeing the programme of delivery and issuing regular progress updates	The Government's last progress report was published June 2009. Implementation progress reports are expected to be made at six monthly intervals, as appropriate.	Implemented: Ongoing work continuing
87 The Government should establish a Cabinet Committee with a remit to improve the country's	Government action reported complete in June 2009	Implemented

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
ability to deal with flooding and implement the recommendations of this Review		
88 The Government should establish a National Resilience Forum to facilitate national level multi-agency planning for flooding and other emergencies	The Government is establishing a National Resilience Forum which will meet early in the new year. A Cabinet Office Minister will chair the Forum.	Implemented: Ongoing work continuing
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 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	This is covered in the legislation being put forward in the Flood and Water Management Bill, which was introduced in Parliament on 19 November.	Implemented: subject to Parliamentary Procedure
92 Local Resilience Forums should evaluate and share lessons from both the response and recovery phases to inform their planning for future emergencies	Ongoing local implementation. The National Recovery Guidance already encourages Local Resilience Forums to evaluate and share lessons from the recovery phase of emergencies, and includes over 70 case studies covering a wide	Implemented: Ongoing work continuing

THE PROGRESS REPORT ON THE GOVERNMENT'S RESPONSE TO THE PITT REVIEW – DECEMBER 2009

Pitt Recommendation	Summary of progress	Status
	<p>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.</p> <p>Reports from Local Resilience Forums are described in Part Two of this report.</p>	

ANNEX A: UPDATE ON FUNDING FOR THE PITT REVIEW RECOMMENDATIONS

The Government's response to Sir Michael Pitt's review announced a total of over £60 million would be spent in taking forward the recommendations over the period 2008/09 to 2010/11. Of this, up to £34.5 million will be allocated by Defra to delivery organisations to help cover the additional costs of taking forward the recommendations they are responsible for. Annex B to the Government response set out how the £34.5 million was allocated.

The following table provides an update to show how much has been allocated to date. It shows that a total of £20.2m has been allocated by Defra so far.

Allocation to:	Allocation (£m)	Allocated by Dec 2009	To deliver:
Local Authorities	£15m	£10m between 80 local authorities ³	Local authority leadership on flood risk management in the highest priority areas, including surface water management plans, tackling surface water problems, mapping of drainage assets, and oversight and maintenance of SUDs for new housing, etc.
Environment Agency and Met Office	£5.0m	£3.76m	A new joint forecasting and warning centre, including the extreme rainfall alert.
Environment Agency	£8.5m	£5m	All other recommendations where the Agency lead, including their new strategic overview of all types of flood risk in England, better modelling, forecasting and mapping for flooding particularly surface water, roll-out of ex-directory flood warnings, reservoir inundation maps, and a national flooding exercise to test the new response arrangements.
Met Office	£0.5m	£230,000	Research to make use of new detailed forecasting models for flooding.

³ A total of £300,000 was allocated in December 2008 to six local authorities to prepare first edition surface water management plans. This was followed in August 2009 with the announcement to allocate a further £9.7m to 77 local authorities assessed to be at greatest vulnerability to surface water flooding. The 77 authorities included three out of the six first edition areas, hence 80 authorities have been funded so far. Approximately half (£4.5m) of the £9.7m in grants awarded will be distributed to local authorities in the 2010/11 financial year.

Cabinet Office	£0.4m	£0.2m	New team within the Civil Contingencies Secretariat to run a national campaign to improve the resilience of critical national infrastructure
Others	£10,000	£10,000	To fund the Risk and Regulatory Advisory Council to consider the communication of flood risk to the public.
Contingency	£5.1m	£1.0m	To provide a contingency fund in case allocations need to be increased in some areas, and to include: <ul style="list-style-type: none"> • Up to £2 million for an improved flood rescue capability. • Up to £1.25 million to support the production of reservoir emergency plans by Local Resilience Forums Funds have also been provided to the following additional activities announced since the Government's response: <ul style="list-style-type: none"> • £750,000 to support local authority flood risk management apprenticeships this year and next. A further £250,000 is being funded from other budgets. • £140,000 to fund a reservoir inundation mapping tool
TOTAL	£34.5m	£20.2m	

On 6 October 2009, Defra published criteria that will be used to award a further £5m to local authorities to fund early action to tackle flood risk. Applications were due by 30 November. Successful applicants are expected to be announced in January with funding to be provided from April 2010.

ANNEX B: LOCAL AUTHORITIES WHO RESPONDED TO THE DEFRA/CABINET OFFICE LETTER REPORTING ON LOCAL PROGRESS IMPLEMENTING THE PITT RECOMMENDATIONS

Counties

- | | | |
|------------------------------|-------------------------------|---------------------------|
| 1. Buckinghamshire | 36. Cheshire West and Chester | 75. Three Rivers |
| 2. Cambridgeshire | 37. Christchurch | 76. Tonbridge and Malling |
| 3. Derbyshire | 38. Colchester | 77. Torridge |
| 4. Devon | 39. Craven | 78. Uttlesford |
| 5. Dorset | 40. Dartford | 79. Watford |
| 6. Durham | 41. East Hertfordshire | 80. Waverley |
| 7. Essex | 42. Elmbridge | 81. Wealden |
| 8. Gloucestershire | 43. Epsom and Ewell | 82. Welwyn Hatfield |
| 9. Hampshire | 44. Exeter City | 83. West Dorset |
| 10. Hertfordshire | 45. Fareham | 84. West Lancashire |
| 11. Kent | 46. Forest of Dean | 85. Wychavon |
| 12. Lancashire | 47. Gateshead | 86. Wycombe |
| 13. Leicestershire | 48. Gloucester City | 87. Wyre |
| 14. Lincolnshire | 49. Guildford | |
| 15. Norfolk | 50. Hambleton | |
| 16. Northumberland | 51. Harlow | |
| 17. North Yorkshire | 52. Harrogate | |
| 18. Nottinghamshire | 53. Hastings | |
| 19. Oxfordshire ⁴ | 54. Havant | |
| 20. Somerset | 55. Hertsmere | |
| 21. Suffolk ⁵ | 56. Hull | |
| 22. Surrey | 57. Mole Valley | |
| 23. Warwickshire | 58. Newark and Sherwood | |
| 24. West Sussex | 59. North Norfolk | |
| 25. Wiltshire | 60. Northampton | |
| 26. Worcestershire | 61. Pendle | |

Local Authorities/ District Councils

- | | | |
|--------------------|--------------------------|--------------------------|
| 27. Aylesbury Vale | 62. Reigate and Banstead | 614. London Boroughs |
| 28. Basildon | 63. Ribble Valley | 88. Brent |
| 29. Blackpool | 64. Richmondshire | 89. Ealing |
| 30. Braintree | 65. Rossendale | 90. Enfield |
| 31. Broxbourne | 66. Runnymede | 91. Hammersmith & Fulham |
| 32. Burnley | 67. Rushmoor | 92. Hillingdon |
| 33. Cambridge City | 68. Shepway | 93. Hounslow |
| 34. Canterbury | 69. South Cambridgeshire | 94. Merton |
| 35. Cheltenham | 70. South Ribble | 95. Newham |
| | 71. St Albans City | 96. Wandsworth |
| | 72. Stroud | |
| | 73. Surrey Heath | |
| | 74. Tendring | |
| | | 97. Barnsley |
| | | 98. Birmingham |
| | | 99. Bolton |
| | | 100. Bradford |
| | | 101. Bury |
| | | 102. Calderdale |
| | | 103. Coventry |
| | | 104. Doncaster |
| | | 105. Kirklees |
| | | 106. Knowsley |
| | | 107. Leeds |
| | | 108. Manchester |
| | | 109. Newcastle upon Tyne |
| | | 110. North Tyneside |

⁴ Includes all authorities in Oxfordshire

⁵ Includes responses from all authorities in Suffolk

- | | | |
|--------------------------|-------------------------------|---------------------------------|
| 111. Oldham | 125. Blackburn with
Darwen | 139. North East
Lincolnshire |
| 112. Rochdale | 126. Brighton and Hove | 140. North Lincolnshire |
| 113. Rotherham | 127. Bristol City | 141. North Somerset |
| 114. Salford | 128. Central
Bedfordshire | 142. Nottingham City |
| 115. Sheffield | 129. Cheshire East | 143. Peterborough City |
| 116. Solihull | 130. Cornwall | 144. Plymouth |
| 117. South Tyneside | 131. Darlington | 145. South
Gloucestershire |
| 118. St. Helens | 132. Derby | 146. Stockton-on-Tees |
| 119. Stockport | 133. Hartlepool | 147. Swindon |
| 120. Sunderland | 134. Herefordshire | 148. Telford and Wrekin |
| 121. Trafford | 135. Isle of Wight | 149. Thurrock |
| 122. Wigan | 136. Luton | 150. Torbay |
| Unitary | 137. Middlesbrough | 151. West Berkshire |
| 123. Bath and North East | 138. Milton Keynes | 152. Windsor and
Maidenhead |
| 124. Bedford | | |

ANNEX C: LIST OF GOVERNMENT OFFICES AND LOCAL RESILIENCE FORUMS WHO RESPONDED TO THE DEFRA/CABINET OFFICE LETTER REPORTING ON LOCAL PROGRESS IMPLEMENTING THE PITT RECOMMENDATIONS

GO East 6 LRFs		Responses received
	Bedfordshire & Luton	√
	Cambridgeshire	√
	Essex	√
	Hertfordshire	√
	Norfolk	√
	Suffolk	√
GO East Midlands 5 LRFs	Derbyshire	√
	Leicester, Leicestershire & Rutland	√
	Lincolnshire	√
	Nottingham & Nottinghamshire	√
	Northamptonshire	√
GO London 6 LRFs	Generic response from LRT	√
	Central, North Central, North East, South East, South West and West.	
GO North East 3 LRFs	Durham & Darlington	√
	Cleveland	√
	Northumbria	√
GO North West 5 LRFs	Cheshire	√
	Cumbria	√
	Lancashire	√
	Greater Manchester	√
	Merseyside	√
GO South East 5 LRFs	Hampshire & IOW	√
	Kent	√
	Surrey	√
	Sussex	√
	Thames Valley	√
GO South West 5 LRFs		
	Avon & Somerset	√

	Bournemouth, Dorset & Poole	√
	Devon, Cornwall, Isle of Scilly	√
	Gloucestershire	√
	Wiltshire	√
GO West Midlands 4 LRFs		
	Staffordshire	√
	Warwickshire	√
	West Mercia	√
	West Midlands	√
GO Yorkshire & Humber 4LRFs		
	Humber	√
	North Yorkshire	√
	South Yorkshire	√
	West Yorkshire	√

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Published by the Department for Environment, Food and Rural Affairs