



House of Commons  
Environment, Food and Rural  
Affairs Committee

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**Flooding: Government  
Response to the  
Committee's Fifth  
Report of Session  
2007–08**

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**First Special Report of Session 2007–  
08**

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## Environment, Food and Rural Affairs Committee

The Environment, Food and Rural Affairs Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Environment, Food and Rural Affairs and its associated bodies.

### Current membership

Mr Michael Jack (Conservative, Fylde) (Chairman)  
Mr Geoffrey Cox (Conservative, Torridge & West Devon)  
Mr David Drew (Labour, Stroud)  
Mr James Gray (Conservative, North Wiltshire)  
Patrick Hall (Labour, Bedford)  
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David Taylor (Labour, North West Leicestershire)  
Paddy Tipping (Labour, Sherwood)  
Mr Roger Williams (Liberal Democrat, Brecon & Radnorshire)

The following members were also members of the Committee during this inquiry

Daniel Kawczynski (Conservative, Shrewsbury & Atcham), Mrs Madeleine Moon (Labour, Bridgend) and Mr Jamie Reed (Labour, Copeland).

### Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No. 152. These are available on the Internet via [www.parliament.uk](http://www.parliament.uk).

### Publications

The reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at

[www.parliament.uk/efracom](http://www.parliament.uk/efracom)

### Committee staff

The current staff of the Committee are Chris Stanton (Clerk), Nerys Welfoot (Second Clerk), Sarah Coe (Committee Specialist—Environment), Marek Kubala and Joanna Dodd (Inquiry Managers), Professor Frank Farquharson and Professor Colin Green (Specialist Advisers), Andy Boyd and Briony Potts (Committee Assistants) and Mandy Sullivan (Secretary).

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# First Special Report

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The Environment, Food and Rural Affairs Committee reported to the House on *Flooding* in its Fifth Report of Session 2007–08, published on 7 May 2008 as HC 49-I. The Government's response to the Report was received on 25 June 2008.

## Government response

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### Introduction

The Government welcomes this report from the Environment, Food and Rural Affairs Committee (“the Committee”).

Last Summer's very serious flooding was the result of truly exceptional and unprecedented rainfall. The impacts were clearly severe but would have been very much worse had it not been for the selfless efforts of the many people in the emergency services, local authorities, the Environment Agency, voluntary organisations and others who responded so magnificently to the emergency. We can never eliminate the risk of flooding, but the investment made by successive Governments, over many years, in flood defences, flood warning and other measures reduced the impacts that would otherwise have occurred. The Environment Agency's defences protected 100,000 properties from flooding last Summer.

Nevertheless, the floods do raise a number of important issues. We need to learn the lessons, and take resolute action to address these. As a first step we commissioned Sir Michael Pitt to lead an independent review and his report is being published on 25 June (“the Pitt Report”). The Government is sure that Sir Michael will have found the Committee's report a very useful and constructive contribution to his review, and it will also help inform the Government's follow-up action. In the meantime we have taken a number of steps as set out in this response.

The Government has been engaged in a long-term review of its policies for flood and coastal erosion risk management, under our *Making Space for Water* strategy. This recognises the need to manage flooding from all sources – including surface water and groundwater – with strategic overview by the Environment Agency. We shall press ahead as quickly as possible in implementing this, including through a new Floods and Water Bill announced in the Legislative Green Paper on 14 May for publication in draft in the next Session of Parliament. This will also address Sir Michael Pitt's view that flooding legislation should be updated and streamlined under a single unifying Act of Parliament that, amongst other outcomes, addresses all sources of flooding, clarifies responsibilities and facilitates flood risk management.

In advance of this, the Government has already taken the following steps in response to last Summer's floods:

- Sir Michael Pitt's Interim Report, published in December 2007, contained 15 Urgent Recommendations which the Government agreed to on the day of publication. On 16 April, Sir Michael published his assessment of progress, stating: "I am pleased to report that strong progress has been made with the majority of the recommendations...I am pleased to see these improvements and overall we are already better prepared for future flooding emergencies."
- In February we published our Water Strategy, *Future Water*, and related consultation which set out the Government's proposals for the better management of surface water. The Government will shortly set out its conclusions on this, drawing also on the issues raised in the Committee's Report and the results of our 15 urban drainage pilot studies which are being published on 25 June.
- Defra's Lead Government Department plan for dealing with serious flooding was thoroughly reviewed and reissued in late December 2007. This drew on lessons identified from last Summer and from the possible East Coast surge in November 2007. Sir Michael Pitt's Interim Report described the approach to that surge as "careful and effective" and "shows that Defra and the Environment Agency have already learnt lessons and improved their performance". The Lead Government Department plan was further revised in May to take account of experience from the floods in January and March 2008. The Plan will be developed further as part of a new National Flooding Framework which we agreed to produce following the Interim Pitt Report.

The Government recognises the need to take forward the action identified both in the Committee's report and in the final Pitt Report. However, we do of course need to look carefully at all the recommendations that Sir Michael identifies and properly assess their impacts, where necessary following consultation. This will lead to a costed and prioritised action plan which the Committee itself calls for in Conclusion/Recommendation 41. A Government statement responding in detail to the Pitt recommendations will be published in the Autumn.

#### **CONCLUSION/RECOMMENDATION 1**

**It is right that the Environment Agency continue to devote the majority of its resources into river and coastal flood risk management, and the building and maintaining of river and coastal flood defences. However, management of surface water flood risk can not remain in its current unclear and chaotic state. A key first step for Government must be to determine organisational responsibility for surface water flooding. We reject the idea of a dedicated Flood Agency. (Paragraph 26)**

#### **CONCLUSION/RECOMMENDATION 2**

**We agree that the Agency is the best-placed organisation to take a strategic role at the national level in relation to surface water (and other inland) flooding. (Paragraph 27)**

#### **CONCLUSION/RECOMMENDATION 3**

**The Agency's overview role needs careful specification. The Government must not add further responsibilities and functions to the Agency at a rate greater than it can**

**absorb through recruitment, training and other preparatory measures. Increased responsibilities must be adequately funded. The Government must also not place unrealistic expectations on the Agency in relation to the modelling and mapping of surface water flood risk, as this will raise public expectations unrealistically. (Paragraph 28)**

#### Government response

The Government agrees with these Conclusions/Recommendations. Flood risk from surface water does need to be properly managed alongside risks from other sources of flooding and one of the main concerns expressed after last summer's floods was about coordination of the various organisations and interests involved. The Government set out a range of proposals for the better management of surface water flood risk in its new Strategy *Future Water* published in February 2008 and have also been conducting 15 urban drainage pilot studies.

While a Government statement on the recommendations in the Pitt Report will be published in the Autumn, and a full analysis of the responses to the consultations which accompanied the publication of *Future Water* has yet to be completed, the Government confirms that the Environment Agency will have a Strategic Overview for all flood risk management, from whatever source. Indeed it is the Government's intention that the recently announced draft Floods and Water Bill will simplify and streamline the complex inter-relationships of roles and responsibilities between the Environment Agency, Local Authorities, internal drainage boards and water companies; and to enable the Government to fully implement the Environment Agency's Strategic Overview role.

The Government recognises the concerns that the Committee raises about the Environment Agency's capacity to take on this additional role and the need to manage expectations about what can be achieved. We shall ensure that these issues are addressed in developing the Agency's Strategic Overview in more detail.

The Government also agrees with the Select Committee in rejecting the idea of a dedicated flood agency not least because this would separate flooding from wider management of the water cycle.

#### **CONCLUSION/RECOMMENDATION 4**

**In determining an overview role, the future relationship between the Agency and local authorities must be carefully articulated and defined in order to produce lines of accountability. This relationship is key to the future management of surface water flood risk. We believe the main purpose of the Agency's overview role should be to provide guidance and advice to local authorities on managing surface water flood risk, to provide quality-assurance of local authorities' plans to manage surface water flood risk, and to ensure consistency in practice between local authorities. (Paragraph 29)**

#### **CONCLUSION/RECOMMENDATION 7**

**Where the local wastewater utility and/or Internal Drainage Board has ownership of, or responsibility for, parts of the drainage system, local authorities should have the power to sub-contract part of their responsibility for ensuring effective drainage to**

**those organisations, and to require their co-operation in managing surface water drainage on an area basis. (Paragraph 33)**

Government response

The Government agrees with these recommendations. We intend that local authorities will take responsibility for surface water management under the Agency's overview. In particular, local authorities will have lead responsibility for Surface Water Management Plans as a tool to improve co-ordination of activities between stakeholders involved in surface water drainage; they could also contract others to do this work, including for instance internal drainage boards or water companies.

The Environment Agency will help to identify the priority areas for such plans across the country, building on work they have already done with Local Resilience Fora in identifying problem areas. We are now working to set out in more detail the respective roles of all organisations.

**CONCLUSION/RECOMMENDATION 5**

**The model for Surface Water Management Plans (SWMP) currently advocated by Government lacks clarity about how co-ordination will be achieved between organisations responsible for surface water drainage in a particular area. In particular, the model does not explain how organisations can be persuaded to fulfil their responsibilities under such plans. In its response to our Report, the Government should set out clearly how the benefits of co-operation will be turned into action. It should also explain how it intends the enhanced SWMPs to fit alongside the existing system of Catchment Flood Management Plans and River Basin Management Plans. (Paragraph 31)**

**CONCLUSION/RECOMMENDATION 6**

**Local authorities should have a statutory duty for surface water drainage. It should be the duty of a local authority to ensure its area is, and continues to be, effectively drained of precipitation to an agreed national standard of service. (Paragraph 32)**

**CONCLUSION/RECOMMENDATION 8**

**The Government should accept the Pitt Review's interim conclusion that local authorities be required to compile a register of all the main flood risk management and drainage assets (overland and underground), including an assessment of their condition and details of the responsible owners. The register should also determine physically where one organisation's responsibility ends and another one's begins. It should be available to the public as a web-based resource. Local authorities could also provide information to members of the public through a one-stop shop telephone number. Local authorities should receive co-operation from other organisations in compiling this register. Upper-tier local authorities should take the lead and, where they exist and where they wish to, parish and town councils should be involved. (Paragraph 34)**

**CONCLUSION/RECOMMENDATION 9**

**Following its consultation, the Government must provide a clear steer about which local authority, in two-tier authorities, should take the lead in co-ordinating the management of surface water flooding and drainage at the local level. (Paragraph 35)**

Government response

The Government will now set out detailed responsibilities for surface water drainage and mapping and how Surface Water Management Plans will be implemented as quickly as possible ahead of any necessary legislative change. We will do this and in full consultation with the Environment Agency, the Local Government Association, water companies and others. In developing these detailed arrangements we shall take full account of the views expressed by Sir Michael Pitt, the EFRA Committee, responses to the consultation which accompanied publication of the Government's new Water Strategy *Future Water* and also draw on the conclusions from our 15 urban drainage pilot studies.

**CONCLUSION/RECOMMENDATION 10**

**We recommend that the Department for Innovation, Universities and Skills and the Environment Agency develop, and publish, a strategy to address the national shortage in flood risk engineers. If the national shortage in this profession is not addressed, much of the Pitt Review may be impossible to implement. (Paragraph 37)**

Government response

The Government recognises that there is a shortage of trained engineers and technicians to meet flood risk management needs. This must be addressed in the context of wider skills shortages and the Government is taking forward more work on engineering skills in general through the Department for Innovation, Universities and Skills, together with the Department for Children, Schools and Families and the Department for Business, Enterprise and Regulatory Reform.

The Environment Agency has previously worked with the Institution of Civil Engineers and Defra to address skills shortages. The Agency has encouraged the development of their own specialists through a bespoke Foundation Degree in collaboration with the University of the West of England (UWE). To date, 56 people have graduated, with 52 now working in flood risk management roles at the Agency. The target by the end of 2008-09 is to have trained 87 engineering technicians, with another 80 undertaking training, and a large proportion having gained lasting employment with the Environment Agency.

In 2007 a scheme for Civil Engineering graduates commenced with 14 students joining the Agency in September 2007 on a four year pathway to professional status with similar numbers planned for September 2008 intake. The Agency also runs an engineering student sponsorship scheme, with around 10 undergraduates each academic year, allowing work experience prior to graduation.

With a view to developing the skills of existing staff, the Environment Agency has developed, again in conjunction with UWE, a BSc and Graduate Diploma in Rivers and Coastal Engineering. These routes allow flood risk management staff who meet specific criteria to develop their skills in order to follow the pathway for Incorporated Engineer status.

#### CONCLUSION/RECOMMENDATION 11

**We believe local authorities should be responsible for the ultimate ownership and maintenance of sustainable drainage systems (SUDs), as happens elsewhere in Europe. The Government needs to resolve ownership and maintenance issues as a matter of urgency to enable the current house-building and eco-towns programmes to incorporate maximum use of SUDs. (Paragraph 42)**

#### CONCLUSION/RECOMMENDATION 12

**A presumption in favour of SUDs should be included in the Planning Bill, to add weight to Planning Policy Statement 25 (PPS25). (Paragraph 43)**

##### Government response

*Future Water* set out proposals for clarifying responsibilities for adoption and maintenance of sustainable drainage systems (SUDs) aimed at encouraging their uptake to improve surface water quality and reduce flood risks. We shall make an announcement on the conclusions drawn from our associated consultation as soon as possible and in so doing we shall take account of the Committee's views.

#### CONCLUSION/RECOMMENDATION 13

**We welcome the Government's decision to consider, as part of its Water Strategy, changing surface water charging to reflect the "polluter pays" principle. Ofwat should insist that water and wastewater companies state the proportions of customers' bills that are made up of foul water drainage, surface water drainage and highways drainage. Property owners who have, or retro-fit, SUDs should receive a rebate on the surface water component of their water company bill. (Paragraph 47)**

##### Government response

*Future Water* announced a review of surface water drainage charges to consider whether they should be changed to better reflect the contribution of hard standing to surface water runoff. We will be working closely with Ofwat during this review and the issues raised by the Committee will be considered.

#### CONCLUSION/RECOMMENDATION 14

**We welcome the Government's Water Strategy policies to change householders' rights to allow them to pave over their front garden, without planning permission, only if the surface is porous and to review the automatic right to connect surface water drains and sewers to the public sewerage systems. We recommend that any new discharge of surface water by drain or sewer to a watercourse should require the consent of the Environment Agency. (Paragraph 51)**

##### Government response

As the Committee notes, *Future Water* sets out the Government's proposals on these issues. The Government intends to change the permitted development rights this autumn so that householders will need planning consent to pave over their front gardens unless they use permeable materials such as gravel or permeable paving. As part of our review of the right to connect to public sewerage systems, we shall consider the Committee's

proposal in relation to Environment Agency consent for new discharges of surface water by drain or sewer to a watercourse.

#### **CONCLUSION/RECOMMENDATION 15**

**Ministers have repeatedly used the £800 million allocation in 2010-11 in an attempt to convey the impression that this large amount of money will enable Government, and others, to respond effectively to the challenges posed by the summer's floods. When broken down, however, the Comprehensive Spending Review 2007 (CSR07) settlement is far less impressive, and looks inadequate to cope with both the traditional and new risks the country faces. In light of the upcoming final Pitt report, and the resources that both local authorities and the Agency will inevitably require to address surface water flood risk, we recommend that the Government reappraise the adequacy of its CSR 07 settlement to combat all types of flood risk. (Paragraph 57)**

#### **CONCLUSION/RECOMMENDATION 17**

**We welcome the Government and the Agency's work to develop a long-term investment strategy for flood risk management. This strategy should provide some answers about the level of flood risk protection that the public should expect, the research and organisation involved (particularly for surface water flooding), the number of flood prevention and alleviation schemes required nationally, and how much this would cost. The strategy should also take account of the effect of climate change on the frequency and intensity of rainfall and storm surges. The strategy should be subject to a public consultation process, and published. (Paragraph 62)**

#### Government response

The Government has long recognised the challenges posed by climate change in the short and long term, in particular the risk of an increase in the frequency and, potentially, the severity of flooding. We acknowledge that flood risk management is an urgent pressure and have recognised this by providing substantial increases in recent Spending Reviews to fund flood expenditure. Whilst the Pitt review has identified a number of pressures, the Government does not intend to reopen the CSR07 settlement. Investment in flood and coastal management must be sustainable and based on sound evidence.

The increase to more than £800 million by 2010-11 will provide a substantial real terms increase in funding and enable the protection from flooding and coastal erosion to be improved for at least 145,000 households. It is consistent with the trajectory of funding increase suggested in the Foresight report and is more than many commentators were calling for before last summer's flooding. It provides some funding to start to address the Pitt recommendations that fall to Government, but it is important to note that responsibility for implementing some of the recommendations will fall to others.

The profile of increase to £800 million over the CSR period reflects the generally long lead-in times for major capital investment schemes which need to be planned, developed, procured and all necessary consents obtained.

The Government welcomes the Committee's support for a Long Term Investment Strategy. This will inform any future spending reviews and the issues raised by the

Committee will be considered as part of the development process alongside issues such as the potential for increased encouragement for communities to contribute towards their own defences.

Funding allocations are based on a wide range of analysis and are regularly reviewed in the light of improving evidence of risks from different sources of flooding. Funding of flood risk management capital improvement projects has traditionally been supported by central government from general taxation. Local government also has an important role, particularly in respect of maintenance and smaller watercourses. Their expenditure is supported through the local government funding arrangements operated by the Department for Communities and Local Government.

#### **CONCLUSION/RECOMMENDATION 16**

**Sir Michael Pitt should publish the full costs of his final recommendations as soon as possible. The Department should make clear in its response how it intends to fund the Pitt Review if the cost of its final recommendations exceeds £34.5 million. It should also say what options it is exploring as to how local authorities will be funded to carry out their responsibilities as a result of the Pitt Review. (Paragraph 58)**

#### Government response

The £34.5 million set aside to implement the Pitt Report is an initial planning estimate over the three-year CSR period. The Government will review how this sum will be allocated, in the light of the final Pitt Report including any early opportunity to begin making a difference in priority areas. Lead Government Departments will need to consider all of the recommendations, including their affordability and the need to ensure that the net additional cost to local authorities is fully and properly funded.

#### **CONCLUSION/RECOMMENDATION 18**

**We support the Pitt Review's interim conclusions related to development in the flood plain, to ensure new buildings in the flood plain are properly flood resilient and resistant. We welcome the Government's announcement to provide a Practice Guide Companion to ensure local authorities properly implement PPS25, particularly in respect of the impact of development on those downstream. We recommend that Government departments, working with the Local Government Association, carry out a survey to establish the present ability of local authorities to implement PPS25 and, should a skills deficit be identified, put forward policies to address this issue. (Paragraph 66)**

#### Government response

The Government welcomes the Committee's view that organisations who use the planning system say the policy on development and flood risk set out in PPS25 is working. Communities and Local Government has recently launched a practice guide to support delivery of the policy. This emphasises that the policy applies to all forms of flooding, including surface water; that Strategic Flood Risk Assessments cover risks from surface water flooding; and to explain the role of Surface Water Management Plans in managing surface water flooding. CLG are holding regional workshops to get the message across to planners and other stakeholders. They plan to examine how PPS25 is being implemented

by local authorities with a view to identifying any barriers to delivery, which may include skills and capacity of local authorities. The Government will consider whether further measures are needed in the light of this evaluation.

#### **CONCLUSION/RECOMMENDATION 19**

**The Department and the Agency should explore the possibility of ring-fencing a minimum proportion of the Agency's capital expenditure over a three-year CSR period for new capital schemes in rural areas. (Paragraph 71)**

##### Government response

The targets and funding allocations announced on 4 February 2008 provide for a minimum of £110 million allocated over the three year period for coastal projects undertaken by local authorities and a minimum of £40 million allocated for non-main river works by local authorities and internal drainage boards over the same period. The Government sets national targets relating to outcomes from the investment that it makes. This allows the Environment Agency, as well as local authorities and internal drainage boards, to determine how these might best be delivered and retain flexibility in approach. We intend to review the Outcome Measures during the second half of 2008 and as part of this work will consider whether it would be appropriate to specifically target rural areas, in the same way as, for example, deprived areas. It is important to note that, due to the dispersed nature of properties in many rural areas, large capital schemes may not be feasible. However, alternative approaches delivering similar outcomes, such as property level resistance and resilience, may be more appropriate.

#### **CONCLUSION/RECOMMENDATION 20**

**We recommend that the Government consider the possibility of ring-fencing Grant-in-aid directly to Regional Flood Defence Committees. (Paragraph 72)**

##### Government response

The Government considers that its current approach of allocating Grant-in-aid to the Agency, which they in turn allocate to Regional Flood Defence Committees (RFDCs), to be a more appropriate basis for funding. This is consistent with the Government's approach of setting the Agency targets related to outcomes and holding them to account for delivery. It is essential that the Agency has the flexibility to move funding between RFDCs (for example if a scheme in one area is delayed, another can be advanced) which would be inconsistent with ring fenced funding.

RFDCs retain powers to raise levies to fund locally important flood defence activity which goes beyond that met by Defra grant in aid. Capital improvement projects promoted in this way still have to comply with fundamental economic, technical and environmental criteria. These levies are paid by upper tier councils, who form the majority on RFDCs, and are supported through the local government funding system.

#### **CONCLUSION/RECOMMENDATION 21**

**The Agency should develop a clear strategy for expenditure on new capital works versus maintenance of existing systems. It should ensure that any proposed new scheme should have an estimated maintenance schedule in the same way that it is accompanied by a construction bill of quantities. The Agency should also ensure its**

**maintenance budget for the CSR 07 period includes the additional maintenance work necessary on the new capital schemes it will build during the period. (Paragraph 75)**

#### **CONCLUSION/RECOMMENDATION 25**

**The Government should re-examine the money available for the maintenance of watercourses and produce a clear analysis, by the end of 2008, of the balance between maintenance and capital spend, bearing in mind the National Audit Office's conclusions, the scepticism of the public that not enough maintenance is being done, and the views of the Environment Agency. (Paragraph 83)**

#### Government response

The Government agrees with Conclusion/Recommendation 21 but does not agree with the re-examination suggested under Conclusion/Recommendation 25. Defra's Grant Memorandum, which governs the use of grant for all new capital schemes, has been amended to require all capital works to be accompanied by a long term asset management plan, a key component of which is the maintenance schedule over the whole life of the asset. Defra is also working with the Environment Agency to ensure that the Outcome Measures, for which targets have already been announced for the capital improvements programme, are also applied to wider asset management, including maintenance.

For its part, the Environment Agency is developing System Asset Management Plans, which will include the full maintenance costs of all Environment Agency asset systems, with the high consequence asset systems being completed first (due for completion in 2010).

The relationship between capital improvements and maintenance is complex. Some capital improvements actually reduce maintenance costs – eg where the capital involves replacing or enhancing new assets. The maintenance budgets for the current CSR period will take into account maintenance of assets built in this CSR period. The Environment Agency takes the whole life costs into account when planning its capital programme. The extension of Outcome Measures to maintenance in 2009/10, should inform the allocation of funding to the different flood and coastal erosion risk management activities that are undertaken.

#### **CONCLUSION/RECOMMENDATION 22**

**Given the enormous level of interest, we believe it is appropriate that local people have to be involved, and consulted, in the formulation of decisions about watercourse and river maintenance. The Agency, and local authorities, must open up dialogue with members of the public, through appropriate local fora, to ensure that they are part of this process. (Paragraph 80)**

#### **CONCLUSION/RECOMMENDATION 23**

**Once decisions have been made, the Agency should make clear, via its website or other means, the maintenance programme for all its watercourses—even if this, in some cases, is minimal—including the risk assessment which the Agency has made in deciding its approach to maintenance of a particular watercourse. The future schedule of maintenance should be announced whenever possible. (Paragraph 81)**

Government response

The Government agrees with the thrust of these recommendations and encourages the Environment Agency and local authorities to be inclusive in developing their policies and open in publishing their works programmes.

The Environment Agency aims to ensure that they have a consistent, evidence-based approach to works that achieves value for money across the country. In developing their programmes of activity, the Agency recognise the need to build trust with organisations and communities by increasing their understanding and involvement with decision-making – including where hard decisions have to be made – and to ensure that relevant information is available through the Agency's website.

**CONCLUSION/RECOMMENDATION 24**

**The Government should ask the Environment Agency and Natural England to agree on how to resolve any conflict between effective drainage for flood defence purposes and the preservation of watercourses as important wildlife habitats, and publish the results. (Paragraph 82)**

Government response

The Environment Agency has a duty to promote the conservation of the natural environment and in certain situations legal obligations to protect natural habitat. The Agency works closely with Natural England to comply with these obligations whilst delivering its role in flood risk management. As part of this work the Agency has developed and published best practice guidance.

For more than a decade the Government has promoted the preparation of Water Level Management Plans that seek to balance and integrate the needs of all relevant interests including those of agriculture, the environment and flood risk management in sites of conservation importance. Elsewhere the Environment Agency and Natural England actively work together to resolve any potential conflicts between effective drainage for flood management and wildlife issues.

**CONCLUSION/RECOMMENDATION 26**

**Either the existing system of riparian duties needs to be made to work more effectively or it needs to be replaced. The Government should explore the practicality, costs and benefits of pursuing both courses of action. Work should begin as soon as possible to examine whether riparian ownership is fit for purpose. (Paragraph 86)**

**CONCLUSION/RECOMMENDATION 27**

**We previously endorsed the Pitt Review's interim conclusion that local authorities be required to compile a register of all the main flood risk management and drainage assets, including details of the responsible owners. This register should include the owners of all watercourses, and be publicly available. (Paragraph 87)**

Government response

Riparian ownership is generally an intrinsic part of land-ownership and conveys both rights and responsibilities which are set out in the Environment Agency's publication

“Living on the Edge”. Where watercourses either create a flood risk, or contribute substantially to flood risk management then, as the Committee notes, there are powers for the Environment Agency, local authorities and internal drainage boards to undertake works on them. While this does not remove the riparian ownership, the riparian owner is relieved of the cost of the work which instead falls to the taxpayer.

In reviewing flood and coastal erosion risk management legislation, the Government will consider the present balance of responsibilities between riparian owners and publicly funded bodies and whether more clarity and consistency is required. This review will also consider how information collection and sharing can be improved, including the proposed register of flood risk management and drainage assets, and how best disputes between neighbours can be resolved, eg where one party is adversely affected by a neighbour's failure to maintain free flow of a watercourse, or where surface water flows from one person's land on to another's.

#### **CONCLUSION/RECOMMENDATION 28**

**Defra should work with its partners and bodies to decide, by the end of 2008, how natural process flood risk schemes with multiple benefits can be best funded and developed. We strongly support the creative use of the Single Farm Payment to reward land owners if their land is used for the purpose of natural flooding to protect people and buildings elsewhere. (Paragraph 90)**

#### Government response

The Government agrees that working with natural processes to mitigate flood risk has an important role to play in the management of risk. The creation of washlands and the realignment of defences will be considered on an equal footing with other options to reduce flood risk. The appraisal of such options will include an assessment of the benefits of any wetland or other habitat created, therefore giving full recognition of the multi-functional benefits of such options in the assessment process. Current appraisal policy guidance supports this position and future reviews will reinforce it in line with Defra's ecosystem approach.

Wherever possible, Government already seeks to ensure that wider policy initiatives and investment programmes contribute to reducing flood risk. For example, flood management is a secondary objective of the Environmental Stewardship agri-environment scheme and Defra encourages targeting to maximise the benefits for flood management. Cross compliance also helps; to receive payment under the single payment scheme, farmers must comply with Good Agricultural and Environmental Conditions (GAEC). GAEC seeks to protect and maintain of soil condition, habitats and landscape features, which help mitigate flood impacts.

The delivery of multiple benefit projects is ultimately a matter for delivery bodies. The Environment Agency and Defra have undertaken significant research to investigate the links between land management and flood risk. While the evidence suggests that land use management can have important benefits for flood risk management at a local level, there is no evidence that these benefits occur at a larger catchment scale. The Environment Agency and the National Trust have taken steps to work more closely together to close the gap in the understanding of catchment scale changes and how they deliver improved flood

risk management. Defra will work with partners by the end of 2008 to explore what more can be done to demonstrate how multiple benefit schemes can alleviate flood risk.

#### **CONCLUSION/RECOMMENDATION 29**

**The Government should re-examine the current statutory duties on utilities in relation to emergency planning. A specific duty should be placed on utilities to ensure their critical assets are protected from the effects of flooding and that they have adequate business continuity plans in the event of a flood. This should include ensuring supply system resilience so that the failure of a key asset can be substituted by other means with a minimum interruption of service. The Agency should advise on plausible scenarios, taking into account climate change impacts. (Paragraph 95)**

#### Government response

Actions have already been taken by both the Government and industry to reduce the vulnerability of critical infrastructure. Information on critical sites has been updated and expanded to encompass all those which, if they could not maintain operations, would cause significant disruption to communities. Chairs of Local Resilience Foras are being briefed to ensure they know what critical infrastructure is within their local area; and this briefing will be repeated as new sites are identified, to ensure that Local Resilience Fora are aware of the impact of any possible disruptions during an emergency. The same information will be used as the basis of a nationwide campaign to improve the resilience of critical infrastructure. This will build on practical work already done by infrastructure providers, as the responsible organisations for ensuring continuity of supply working with government.

The Electricity industry has identified just over 1,000 grid and primary sites which are in flood zones. The industry is working with the Environment Agency to identify which of these sites might warrant additional protection. Some of these are already protected, for example recently built flood defences protected 4 substations in Yorkshire last year. In the water sector, each water company is reviewing how its critical assets are at risk from flooding in preparing its business plan for the current Ofwat-led review of water price limits. All this action will be pulled into a planned national campaign of action to improve resilience, sector by sector; Government will produce later this year.

In relation to emergency planning, response and recovery, the Civil Contingencies Act 2004 (CCA) places statutory duties on utilities as Category 2 responders (as defined by the Act). The CCA will be reviewed later this year, and as the Government has already indicated in response to Sir Michael Pitt's interim report, the duties placed on Category 2 responders - including business continuity planning - will be examined and revised if necessary. In the meantime, the Government will continue to encourage critical infrastructure operators to have business continuity planning to BS 25999 standard.

In relation to the water industry, the Government's draft social and environmental guidance to Ofwat has made clear the importance of ensuring that water companies are able to carry out the essential works needed to address the vulnerability of their critical assets to natural hazards and the predicted effects of climate change. The review of the provision of alternative water supplies during a water emergency (referred to in the response to Conclusion/Recommendation 36) may necessitate new guidance to the water

industry on the Security and Emergency Measures (Water and Sewerage Undertakers) Direction 1998 and the Security and Emergency Measures (Licensed Water Suppliers) Direction 2006. The specific obligations on electricity companies about ensuring continuity of supply are set out in The Electricity Security, Quality and Continuity Regulations 2002 which were amended in 2006.

#### **CONCLUSION/RECOMMENDATION 30**

**We believe a proper sharing of financial responsibility is necessary between utilities' shareholders and customers in improving the resilience of utilities' infrastructure. Ofwat must ensure that the 2009 price review takes full account of the need for water companies to improve the resilience of critical assets, and of the costs this implies. But in doing so, it should also resist attempts by water companies to raise water bills, in order to pay to bring the infrastructure to the level of resilience it should have had in the first place. Consumers should not pay for companies' past inadequacies. (Paragraph 96)**

#### Government response

Water companies have general duties under the Water Industry Act 1991 to maintain their assets. In common with other statutory duties, funding this requirement of water companies is a matter for Ofwat.

Following the flooding in 2007, Ofwat have reviewed current industry practice for assessing the resilience of assets to flood risks. This sets out how to assess the risk of flooding of critical assets; identify different approaches to maintaining or improving the resilience of the service delivered by these and related assets; and guidance on the application of cost benefit analysis for justifying potential asset investments.

#### **CONCLUSION/RECOMMENDATION 31**

**We agree with the Agency that reservoir and dam safety management should shift from being based on size to a risk-based approach. We endorse the Government's plans to introduce a requirement for emergency plans for reservoir and dams. We recommend an immediate review of the existing legislation in this area. (Paragraph 99)**

#### Government response

The Government agrees with this recommendation in principle and will take it into account in reviewing reservoir safety legislation in preparation for the draft Floods and Water Bill which it plans to produce in the next Session of Parliament.

#### **CONCLUSION/RECOMMENDATION 32**

**We recommend that Network Rail work with the Environment Agency, local authorities and others to design solutions that will minimise flood risk to themselves and other land owners close by. (Paragraph 101)**

#### Government response

Network Rail welcomes the recognition of the important role it plays in managing flooding and drainage. It has duties to operate, maintain, renew and enhance the rail network, and

in so doing to assess their flood risk which it does in conjunction with the Environment Agency.

The rail network will also be captured in the Cabinet Office's work to establish a systematic programme to reduce the risk of disruption of essential services resulting from natural hazards (as mentioned under Conclusion/Recommendation 29).

The EA has a long-standing policy of actively supporting infrastructure operators to undertake risk assessments for critical assets. In so doing, the Agency will make available information that it holds on flood risk and depths and will advise on the impact of any proposed mitigation measures on flood risk in the wider community. However, only infrastructure operators have detailed site specific knowledge such as the level of flooding that will cause asset failure, the criticality of the asset and alternative options for maintaining a service.

### **CONCLUSION/RECOMMENDATION 33**

**Local authorities and other relevant local organisations need to rehearse emergency response exercises on a more regular basis. This would help to improve preparedness and also ensure people in various organisations know each other. The scale of the rehearsed emergency events should take account of the extreme weather events predicted as a result of climate change. The Government and the Environment Agency should be centrally involved in the formulation of such exercises to ensure that they are demanding enough. (Paragraph 104)**

#### Government response

The Government agrees with this recommendation. In producing its new National Flooding Framework, the Government will set out its expectations in relation to emergency exercises being conducted at local, regional and national level.

### **CONCLUSION/RECOMMENDATION 34**

**The Government must ensure that the voluntary sector is included as part of civil contingency planning to maximise the effective use of the sector. (Paragraph 105)**

#### Government response

The Government agrees with this recommendation, but it is for local responders to determine locally. The Civil Contingencies Act 2004 requires local responders to work with the voluntary sector and build voluntary organisations into emergency planning, training and exercising, where appropriate, such as in their involvement in Local Resilience Fora. This is also set out in the interim Multi-Agency Flood Planning Guidance that the Government issued to Local Resilience Fora in February 2008. The final guidance will make a stronger point of including the voluntary sector in the planning stage as well as in exercises.

### **CONCLUSION/RECOMMENDATION 35**

**Emergency response in two-tier local authorities can add complications to an already difficult situation. We support the Pitt Review's interim conclusion that "upper-tier" local authorities should be the lead organisation 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. (Paragraph 107)**

Government response

The Government agrees with Pitt's Interim Conclusion 38, and will look to reinforce it as good practice where appropriate in national guidance. For example, the Government's interim guidance on preparing Multi-Agency Flood Plans reinforces the need for "upper tier" local authorities to take a view across all emergency plans within their area and to make sure such plans complement and reinforce each other – in particular ensuring commonly agreed and recognised response triggers.

**CONCLUSION/RECOMMENDATION 36**

**The Government should revise upwards both the planning contingency whereby the water industry is required to prepare for 200,000 people without water for 7 days, and the minimum per capita amount of water to be provided in an emergency. It should then ensure that water companies are able to demonstrate that they have the ability to meet these minimum standards, through the provision of sufficient materials such as bowsers and/or bottled water. (Paragraph 111)**

Government response

As announced in *Future Water*, the Government is currently reviewing the provision of alternative water supplies during a water emergency. This review is considering the amount that should be provided, the methodologies by which the alternative water is delivered and maintained and the arrangements for identifying vulnerable people and for providing them with supplies.

**CONCLUSION/RECOMMENDATION 37**

**The Environment Agency should undertake to provide copies of its three flood guides to local authorities, to be circulated for free to those houses in areas of highest risk. (Paragraph 113)**

Government response

The Environment Agency continuously reviews how it communicates with those at flood risk. In December 2007 they published three new flood advice leaflets on how to be prepared before, during and after a flood. These were sent to all people registered to receive the Agency's flood warnings service and the Agency is also sending them to its professional partners such as local authorities, emergency service and the media, and to voluntary organisations such as the Red Cross. Additional copies are made available on request and it is for local authorities to decide on the best means of distribution.

**CONCLUSION/RECOMMENDATION 38**

**The Government should include an assessment of flood risk within the information to be included in Home Information Packs. The Environment Agency's guides should also be included in the packs for those properties deemed at risk. (Paragraph 114)**

Government response

The possible inclusion of a flood search in the Home Information Pack (HIP) was carefully considered before HIPs were introduced last year. The Department for Communities and Local Government January 2007 consultation paper *'Home Information Pack Update: Towards 1 June'*, covered a number of issues concerning possible longer term changes to HIPs and included a section on 'Flood and Ground stability searches'. This stated that such searches were not compulsory as "they are not relevant in all areas and we did not want to impose the cost of providing them where that would be a waste of money". However, it concluded that systems were being developed that would enable pack providers and sellers to find out quickly and cheaply whether a property was in a high risk area. We will monitor this development and consider whether it should be mandatory to include in a HIP either a certificate stating that the property is not in an area at high risk of flood or ground instability or a full search where the property is in a high risk area.

Meanwhile people can enter their postcode into the Environment Agency's Website to find out if they are in a flood risk area.

**CONCLUSION/RECOMMENDATION 39**

**There should ideally be an opt-out for receiving flood warnings from the Environment Agency in areas of high risk, rather than the current opt-in system. The Agency should publish, by the end of 2008, any results from its pilot scheme to register automatically eligible households and premises for flood warnings unless they opt out. It should also set out any concerns that have arisen from the pilot. (Paragraph 115)**

Government response

Flood warning saves lives. The Environment Agency now automatically registers properties' telephone numbers to receive flood warnings where the necessary information is publicly available. There are some remaining issues over reaching ex-Directory subscribers but the Agency and OFCOM are working hard to ensure all those at high risk will automatically receive these important warnings. Individual householders can opt out if they wish but we would strongly advise against this.

**CONCLUSION/RECOMMENDATION 40**

**We understand that insurance companies will want to produce their own detailed flood risk maps for commercial reasons. The current situation, however, is a recipe for conflict. The Government should set out its policy on how it intends to resolve this potential confusion. We recognise the production of flood maps is a dynamic process and is dependent on the best data available, but it is in everyone's interest to have the best available validated map. The Environment Agency should take the lead in pulling partners together to achieve this. The Agency should set up a standing committee that annually reviews all the available data on flood mapping, so insurance companies and the Met Office can share experience, and this committee should publish an annual report about the dynamics of the process. (Paragraph 117)**

### Government response

The Government has undertaken detailed discussions on flood mapping with the insurance industry during the review of the Statement of Principles. As part of this, it has been agreed that the Environment Agency will establish a committee with insurers and other appropriate parties to establish a common understanding and discuss problems and potential improvements in flood risk mapping, including greater exchange of data. It is likely, however, that some insurers will want to maintain and develop their own maps where they consider these will provide a commercial advantage. We would expect the group to meet and report on an appropriate timescale (not necessarily annually) to contribute to the production and dissemination of flood maps and assessments.

The Environment Agency is also working closely with the Met Office and other partners to improve flood warning, and the outputs of Met Office climate change modelling will be used, through the UK Climate Impacts Programme climate scenarios, in assessing the impacts of climate change on flood risk.

### **CONCLUSION/RECOMMENDATION 41**

**Following the publication of the Pitt Review's final report, the Department must publish a costed and prioritised action plan to set out the timetable for implementing Sir Michael Pitt's findings. We recommend that the Government request that Sir Michael Pitt be given a role within the Environment Agency to ensure the implementation of his findings. (Paragraph 121)**

### Government response

As noted above, the Government recognises the need to take forward the action identified both in the Committee's report and in the final Pitt Report. However, we do of course need to look carefully at all the recommendations that Sir Michael identifies and properly assess their impacts, where necessary following consultation, in order to produce a costed and prioritised action plan. A Government statement responding in detail to the Pitt recommendations will be published in the Autumn. This will include arrangements for overseeing and implementing of improved flood risk management, including consideration at Cabinet Committee level with Sir Michael Pitt being invited to relevant discussions.

**Department for Environment, Food and Rural Affairs**

**25 June 2008**