



Civil Contingencies Secretariat



# Towards a New National Flood Emergency Framework

## INTRODUCTION

### Background

1. In his statement to Parliament following the publication of Sir Michael Pitt's final report *The Pitt Review: Lessons learned from the 2007 floods*, the Secretary of State for Environment, Food and Rural Affairs, Hilary Benn, said that the Government would produce an outline of a National Flood Emergency Framework by the end of July 2008.

2. This document is intended to meet that pledge. It is also a first step in meeting the Government's commitment produce a draft Framework for consultation by the end of 2008, as part of a major programme to improve preparedness for severe flooding.

3. The need for a National Flooding Framework was highlighted by Sir Michael Pitt in his December 2007 Interim Report. He said then that, in order to effectively fulfil its Lead Department role for flood risk management and emergency response, and in light of the fragmented nature of local flood risk planning and the benefits of national level frameworks on other issues, Defra needed to urgently develop a National Flood Emergency Framework.

4. In his final report, Sir Michael said that, during the 2007 floods:

“... time was spent dealing with issues which could have been pre-determined centrally. In other areas (such as pandemic influenza), such issues are addressed within a single national framework – a model in which the lead government department brings together information, guidance and key policies in a single strand of planning, thus providing a resource for all tiers of government and key external partners. It is not an emergency plan, but it does bring coherence and identify key prior decisions. The Review believes that capturing work across government in this way would be equally sensible in relation to flooding.”

### Progress to date

5. Flood risk management is, of course, not a new activity. It has long been an important aspect of local risk assessment processes. But the flooding in 2007 has already prompted a renewed effort to improve the level of planning and preparedness. In his interim report, Sir Michael Pitt acknowledged that Defra had, by December 2007, completed a review of its Lead Government Department Plan. That Plan, while limited in scope to the responsibilities of the lead department (i.e. Defra), provides a sound and solid basis for developing a National Flood Emergency Framework.

6. The Lead Government Department Plan sets out Defra's plans and procedures for fulfilling its Lead Government Department role for flood emergencies in England, in compliance with the Government's generic framework for emergency management. But it also records:

- the basis for emergency planning - including the role of other Government departments and agencies and key roles and responsibilities for managing flooding events;
- notification arrangements for actual or expected flooding - including arrangements to assess and review the impact of flooding, escalation arrangements and co-ordination between central government and local responders; and
- arrangements for managing a flooding event - including notifications of actual or forecast serious flooding or dam breach, immediate actions to be taken and escalation procedures.

7. Annex 1 to the Lead Department Plan sets out the broad framework for flood risk management in England. It is reproduced as Annex 1 to this document.

#### The model for a comprehensive National Flood Emergency Framework

8. The Lead Department Plan is a practical emergency plan which would, in the event of actual or forecast serious flooding, be put into immediate effect. But it does not, on its own, constitute the comprehensive framework recommended by Sir Michael Pitt.

9. In his report, Sir Michael points to the national framework for responding to an influenza pandemic as a model for the sort of National Flood Emergency Framework he would like to see. The influenza pandemic framework is intended to guide and support integrated planning and preparations for pandemic influenza across government, in health and social care and in public and private sector organisations. It includes:

- the Government's strategic approach to and preparations for an influenza pandemic;
- information on the likely impact; and
- key assumptions for use in response planning.

10. The influenza pandemic framework is, indeed, a good model for a National Flood Emergency Framework and has strongly influenced the outline which we propose to use as the basis for development of the latter.

### The purpose of the proposed National Flood Emergency Framework

11. A National Resilience Capability Framework, led by the Cabinet Office, is the Government framework for determining and assessing a range of threats and hazards to the UK. The majority of hazards and threats are captured by generic planning. However, as flooding is judged as one of the highest current risks to the UK (along with pandemic flu), a more specific focus on planning is necessary.

12. The intention is for the new National Flood Emergency Framework (NFEF) to provide a forward looking policy framework for flood emergency planning and response. It will bring together information, guidance and key policies and act as a resource for all involved in emergency planning at national, regional and local levels. The NFEF will ensure that we deal with a serious actual or potential flooding event in a coherent way across the country.

13. The flooding crisis in June and July 2007 put many newly formed local and national response structures and emergency plans to the test, highlighting the value of having clearly defined and understood roles and responsibilities. The new framework will provide further clarity on this by proposing thresholds for national triggers and response levels.

14. But the NFEF will not be a document that simply encapsulates existing provisions. It will add value to the current arrangements by helping to ensure that planning at local, regional and national level is up-to-date, taking into account the recommendations of the Pitt Review. The development of the Framework will either encapsulate or complement the many other strands of work flowing from Sir Michael Pitt's report. It will give clarity and certainty on roles and responsibilities. It will focus on improved cooperation and mutual aid between regions. It will address the communication challenges that can affect the management of severe incidents. And it will improve the knowledge base and exchange of information, to improve resilience to flooding and the consequences of flooding events.

15. The comprehensive nature and wide scope of the NFEF means that, in practice, it will address, or at least relate to, a number of Sir Michael Pitt's recommendations. To illustrate this, Annex 2 to this document lists those relevant recommendations. Annex 2 should not, however, be taken as an indication of the Government's acceptance, or otherwise, of those recommendations, which will be set out in a forthcoming formal response to Sir Michael's report.

### **THE STRUCTURE AND CONTENT OF A NEW NATIONAL FLOOD EMERGENCY FRAMEWORK**

16. This section sets out our plans to structure and populate a new NFEF. Some of the proposed content is more advanced in its preparation but it is

important to bear in mind that there will be a public consultation before any of the content is finalised.

**A. Part one of the NFEF**

17. Part one will comprise:

**(a) An outcomes and purpose section**

18. We want the NFEF to improve resilience to severe flooding incidents in England through a common and strategic reference point for flood planning and response - for all tiers of government and response organisations. We want the framework to strengthen resilience and response to actual or potential serious and/or disruptive flooding. In short the key outcomes we will want to see are:

- a nation that is more resilient to future flooding events;
- responses to flooding events that are judged to be effective; and
- improved understanding by all of the wider impacts of flooding.

19. The purpose of the Framework will be to:

- ensure delivery bodies understand their respective roles and responsibilities;
- clearly set out the risks and impacts to inform community risk registers;
- give all players in an emergency flooding situation a common point of reference - bringing together information, guidance and key policies in a single planning document;
- set out clear plans to manage the consequences of flooding events;
- establish clear thresholds for emergency response arrangements;
- set out the role of citizens – raising awareness of what individuals can do;
- place proper emphasis on the multi-agency approach to managing flooding events;
- provide clarity on the means of improving resilience and minimising the impact of flooding events;
- provide a basis for individual responders to develop and review their own plans; and
- be a long-term asset that will provide the basis for continuous improvement in flood emergency management.

**(b) A strategic objectives section**

20. Although the NFEF will be the primary source of information for all audiences with an interest in the detail of flood emergency planning and response, it will also establish a set of strategic objectives for the benefit and use of those organisations in the front-line of emergency management.

(c) **A section on context and scope**

21. The Civil Contingencies Act ('the Act') came into force on 14 November 2004 and is the UK framework for emergency planning. The Act places six main duties on each Category 1 responder, which are: risk assessment, business continuity management, emergency planning, sharing information and co-operating with other responders, and arrangements to warn and inform the public. A National Capability Programme, led by the Cabinet Office, aims to ensure that a robust infrastructure of response is in place to deal rapidly, effectively and flexibly with the consequences of civil devastation and widespread disaster inflicted as a result of conventional or non-conventional disruptive activity. Within this programme are 19 workstreams looking at emergency and resilience planning matters – including severe flooding. It is within this context that the NFEF will be developed.

22. The scope of this outline document illustrates the wide scope of the NFEF. Nevertheless, it is worth recording the following specific issues that we expect to be covered in detail:

- (i) National response thresholds and triggers - the framework will provide a clearly defined set of escalation parameters to move from the "Local Response Phase" up through four "UK Response Levels". It will set out the thresholds at which the incident becomes a national-level incident.
- (ii) Flood alerts and flood warnings - the framework will cover the Flood Warning Service provided by the Environment Agency and the new Flood Alert Service for Category 1 and Category 2 Responders (water, sewage, electricity and gas suppliers and operators) in advance of the normal Flood Warning Service.
- (iii) Strategic priorities and outcomes - the NFEF is expected to establish a pre-determined national set of priorities and outcomes so that all those involved in responding to a flooding event have a common understanding on the outcomes that are expected from their interventions.
- (iv) Information flows - these are already well documented but the NFEF will firmly establish the necessary information flows that are necessary to balance strategic management of a flooding event and operational matters at the local and/or regional levels.
- (v) Response capabilities – the framework will set out the capability requirements at local, regional and national levels, including the services that should be available for the rescue and care of those affected by flooding.
- (vi) Maintenance and restoration of essential services – the NFEF will cover the essential service provisions that are likely to be affected

by widespread, severe flooding. Managing the consequences of such flooding may require prioritisation of effort and resources to maintain or restore essential services. The NFEF will set out the circumstances in which such intervention may be required and outline protocols that would need to be followed.

23. It is also worth recording the following areas which we expect to be primarily outside the scope of the framework (although it will be necessary to make appropriate links to them):

- plans for post-flooding recovery;
- tactical and technical issues relating to flood management;
- flood defence and other flood management issues aimed at reducing the incidence of flooding;
- resource commitments by public bodies involved in responding to flooding emergencies; and
- planning matters covered by national planning policy.

(d) **A section on flood risk in England**

24. Our rivers and the sea are precious natural resources. They need space to function and evolve. The floodplains for these rivers and the sea are important features that allow excess water to be stored safely in times of heavy rains, storms and floods. Building in floodplains poses risks of flooding. This section of the NFEF will include up-to-date information on those risks. It will also cover the latest scientific evidence of the increasing risks from climate change.

(e) **The legal framework for flood emergency planning and response**

25. This section will set out the key legislation that impacts on flood emergency planning and response. It is likely to include explanatory material on the following primary legislation, among others:

- The Civil Contingencies Act, 2004 – which includes provision for building adequate capability to deal with a range of flood events, reinforcing cooperation between the emergency services, local authorities and other front line responders at the local level.
- The Water Act, 2004 – which details water companies' duties on service provision and quality, including response to the failure of water supply.
- The Environment Act, 1995 – which defines the roles of stakeholders in the avoidance of water pollution and the management of pollution events.
- The Water Resources Act 1991 – which establishes those bodies that are responsible for decontamination of water.
- The Reservoirs Act, 1975 – which sets out responsibilities and

contingency plans relating to reservoir dam failure.

26. Subject to Parliamentary approval, it will also refer to the Climate Change Bill currently before Parliament and the draft Floods and Water Bill that the Government plans to bring forward for pre-legislative scrutiny in the 2009-10 Parliamentary session.

27. This section will also cover the relevant secondary legislation (statutory instruments).

(f) **A section on types of flooding, flood scenarios and planning assumptions**

28. The framework will cover all of the main sources of flooding and the planning assumptions that underpin planning for such eventualities:

- fluvial (river);
- coastal;
- pluvial (surface) water;
- surcharged sewer and drain flooding; and
- groundwater flooding.

**B. Part two of the NFEF**

29. Part two will cover the full range of impacts and consequences of flooding. From experience, we know that the most serious flooding events (of any type) can lead to loss of life and severe economic damage which may take many months, possibly years, to overcome.

30. The immediate consequences of serious flooding may include the need for:

- emergency rescue;
- evacuation and temporary shelter;
- arrangements for dealing with fatalities and injuries;
- reuniting people with their families;
- repair of structural damage and removal of debris and sediment from transport routes;
- provision of alternative water supplies;
- alternative provision for affected essential services and communications;
- repair of drainage systems to avoid/mitigate overflow of sewerage;
- temporary accommodation for people forced from their homes;
- cordoning off of dangerous areas; and
- disposal of dead livestock and other animals.



31. But there will be a range of impacts and consequences from individual flooding events that are not wholly predictable. So it will be important that the NFEF considers, in more general terms, potential impacts and consequences relating to all three aspects of sustainable development:

society

- endangering people's lives;
- disrupting society – damaging people's homes and wider community networks;
- disrupting public services – including health and social care, education and public transport;
- disrupting utilities – including energy supply, water supply, sewerage services, telecommunications;
- disrupting food supplies.

Economy

- affecting the economic strength of businesses – from SMEs to large corporations;
- damaging livelihoods – leading to losses of employment and income.

Environment

- endangering wildlife;
- causing damage to the natural environment and habitats.

32. It will also be important to capture in the NFEF the likely secondary impacts and consequences arising from a flooding event – i.e. the knock on effects on, for example, public services, health, schools, businesses, transport and the supply of goods and services.

**Part three of the NFEF**

33. Part three will cover the preparations that have been made to deal with serious flooding events (i.e. existing emergency planning) and the arrangements that would be put in place in the event of a likely, imminent flooding event. It will record the links between flood planning, flood warning, on-the-ground information to affected people and businesses (including possible evacuation) and transition to recovery.

34. Flood planning is not carried out in isolation from other emergency planning. As is the case for most emergency situations, the main planning elements cover: risk assessment; emergency response planning; business continuity planning; contingency planning; and planning for recovery. Part three of the NFEF will set out, among other things:

- the arrangements set out in Defra's Lead Department Plan for flooding;
- the UK resilience planning framework and the Flood Emergency Capability

Programme (FECP);

- national guidance and the UK-resilience resources;
- information on Multi-Agency Flood Plans (MAFPs);
- national risk assessment arrangements;
- local risk assessment guidance and local planning arrangements;
- Met Office weather predictions, forecasts and alerts;
- Environment Agency forecasting and flood warning capability; and
- arrangements for warning and informing the public.

#### **Part four of the NFEF**

35. Part four will cover the arrangements for responding to actual events of severe flooding. It will set out arrangements for:

- national response thresholds and triggers;
- flood alerts and warnings;
- setting strategic priorities and desired outcomes in the event of flooding;
- rules of engagement for all those involved in dealing with the emergency;
- flood water rescue during a severe flooding incident (including statutory responsibility if necessary);
- temporary defences, sandbags, flood products;
- deployment of mobile pumps;
- emergency repairs; and
- deployment of temporary shelters, food, water, power and medical supplies.

36. Part four will also set out, in detail, the Concept of Operations (CONOPS) - the arrangements for the response to an emergency requiring co-ordinated UK central government action. These arrangements describe how the UK central government response will be organised, and the relationship between the central, regional and local tiers in England, as well as the relationship between the UK central government and the devolved administrations in Scotland and Wales and the Northern Ireland Administration.

37. Part four will also cover the operational response arrangements at local level - the co-ordination through the Gold, Silver and Bronze Commands that are established to respond to a range of emergencies.

#### **Part five of the NFEF**

38. Part five will cover the maintenance of essential services during a flooding emergency. It will set out the approach to contingency and business continuity planning for all of the following:

- central Government;

- regional and local Government;
- water supply and sewerage;
- power supply (electricity);
- fuel supplies (gas and downstream oil);
- telecommunication and networks;
- health and social services; and
- food and farming.

### **Part six of the NFEF**

39. Part six will cover, in detail, the early post-flooding arrangements for transition to recovery and the restoration of disrupted essential services. It will cover the provisions for national intervention where this is necessary to prioritise the deployment of effort and resources in the event of resources becoming over-stretched. It will set out the circumstances in which such intervention may be required and outline protocols that would need to be followed.

40. Part six will not, however, set out the longer-term recovery arrangements for flooding incidents, which vary significantly with each flooding incident.

### **Part seven of the NFEF**

41. Part seven of the NFEF will describe the roles and responsibilities of all the actual or potential main players in a flooding emergency, including:

- the Environment Agency;
- central Government;
- the Met Office;
- Government Offices for the Regions;
- Regional Resilience Forums;
- local authorities;
- Local Resilience Forums;
- Internal Drainage Boards;
- the Highways Agency;
- the Police;
- the Fire and Rescue Services;
- Ambulance Services;
- the water and energy sectors;
- the Health Protection Agency;
- the Devolved Administrations
- the armed forces;
- the Marine and Coastguard Agency;
- the RNLI;
- international assistance;
- the Voluntary and Community Sector;

- the general public; and
- the media.

42. The extent to which the NFEF will apply to Scotland, Wales and Northern Ireland will be dependent on the devolution settlements with those countries. Scottish emergency co-ordination arrangements provide for the Scottish Executive to act as a focus for communications with the UK Government when appropriate. The Emergency Co-ordination Centre (Wales) is a facility established by the Welsh Assembly Government to gather and disseminate information in Wales.

43. The principles of strategic co-ordination of emergency response in Northern Ireland are the same as those elsewhere in the UK. However, the structures reflect the organisation of public services in Northern Ireland. In the case of severe, widespread flooding the Rivers Authority will contact the Office of the First Minister and Deputy First Minister who will make the necessary link through COBR and Defra.

#### **Part eight of the NFEF**

44. Part eight of the NFEF will set out the arrangements for communication and public engagement in the event of a flooding emergency.

45. This section will include details of the public warnings issued by the Environment Agency before expected flooding occurs in England. Such warnings are disseminated via a number of routes.

46. It will also cover the communications between organisations involved in responding to a flooding event, including situation reporting, CRIPs (Common Recognised Information Pictures) and Ministerial briefing.

47. Finally, part eight will extend to communications that seek to improve public understanding of flooding and flood emergencies – what individuals, families and businesses should do to be prepared for it happening to them.

48. The concept of community resilience is not new. It is recognised that the first response to any emergency would come not from the "blue light" services but from the public. In some parts of the country, people and communities might have to manage the immediate response for the first vital few minutes. Local communities are often best placed to know the location of important infrastructure or assets and vulnerable people. Communities will be encouraged to develop this concept further and undertake preparatory activity before an incident occurs.

## ANNEX 1

### **Annex 1 To the Defra Lead Government Department Plan for Flooding in England: Framework for Flood Risk Management in England**

#### **Introduction**

A1.1 Flooding is a constant but unpredictable hazard to life and property. Some 5 million people, in 2 million properties, live in flood risk areas in England and Wales. Although the majority of these properties are protected against flooding to varying standards, it is always possible for defences to be breached or overtopped, for example by flood events greater than the design standard of the defences.

A1.2 Flooding from any of the sources covered by this Lead Government Department Plan can be expected in England at any time, including during the summer, as was seen in 2007. Most flood events are local but those such as in Easter 1998, autumn 2000 and summer 2007 can be widespread, covering much of the country.

A1.3 Broadly, flood risk is a combination of probability multiplied by consequence:

- Probability – the probability of a flood event happening can be reduced (for example) by providing and maintaining physical defences;
- Consequence – the consequences of flooding can be reduced by providing flood warning systems, contingency planning and building in resilience and emergency response within the framework of the Civil Contingencies Act, 2004.

A1.4 This section goes on to describe:

- the broad framework under which flood risk is managed in England including responsibilities for managing different types of flooding;
- the key organisational roles and responsibilities in relation to managing flooding events.

#### **Broad framework under which flood risk is managed in England Defra**

A1.5 Defra sets the policy, administrative and legal framework for delivery of the flood (and coastal erosion) risk management service in England. However, it is important to note that Defra has no operational role in managing flooding incidents; this is entirely the responsibility of local emergency responders led by the police in the Gold, Silver and Bronze commands. Defra is, however, the Lead Government Department for flooding in England under which it:

- Leads on emergency planning, ensuring that effective planning for flood emergencies takes place at national, regional and local level including by leading the flood emergencies work-stream under the Cabinet Office led Capabilities Programme. This includes assessing the capability of all responders to deal with a range of emergencies.
- Ensures that the cross-government response to flooding and recovery is initiated when floods occur, including collecting and disseminating information on the causes and impacts of the floods. This continues until such time, if at all, that central machinery within Civil Contingencies Secretariat takes over and CLG takes over the recovery role. Defra will support these roles.

A1.6 Defra also provides most of the funding for delivery of flood and coastal erosion risk management, and sets the outcomes and targets that should be delivered for that investment. Funding is directed mainly at the Environment Agency to build and maintain physical defences and also provide flood warning systems. Funding is also provided to local authorities and internal drainage boards for their flood and coastal erosion risk management activity.

A1.7 Defra does not itself build defences, or decide which projects should be carried out; this is undertaken by the “operating authorities” (i.e. the Environment Agency, local authorities and internal drainage boards) under “permissive powers” meaning that they are able to carry out works but are not generally under a legal obligation to do so. The EA is, however, under a Direction from the Defra Secretary of State to provide a flood warning service for flooding from rivers and the sea.

### **Environment Agency**

A1.8 The Environment Agency (EA) is the principal flood risk management operating authority. EA is empowered to manage flood risk from designated main rivers and the sea. The EA is also responsible for increasing public awareness of flood risk, flood mapping forecasting and warning. EA currently has a general supervisory duty for flood risk management and Defra is building on this to create a strategic overview role for the EA for all flood and coastal erosion risk management.

### **Local Authorities and Internal Drainage Boards**

A1.9 Local authorities and, in areas with special drainage needs, internal drainage boards have powers to manage flood risk from ordinary watercourses (that is those not designated as main rivers).

### **Surface water, groundwater and artificial waterways/canals**

A1.10 See Section 1, paragraphs 1.6-1.8

### **Dam Failure**

A1.11 There is separate legislation related to dam failure. The Reservoirs Act 1975 provides a safety regime for large raised reservoirs which hold, or are capable of holding, more than 25,000m<sup>3</sup> of water above natural ground level. The Secretary of State for the Environment, Food and Rural Affairs in England has the following responsibilities under the 1975 Act:

- to appoint specialist engineers to panels, established under the 1975 Act, after consultation with the Institution of Civil Engineers;
- to supervise the enforcement authority, which is the Environment Agency in England. The Secretary of State receives biennial reports from the enforcement authority about the steps it has taken to ensure Reservoir Undertakers comply with the requirements of the 1975 Act.
- powers to direct Reservoir Undertakers to prepare a flood plan setting out the action they would take in order to control or mitigate the effects of flooding from an escape of water.

A1.12 The Environment Agency has enforcement duties to ensure that Reservoir Undertakers comply with the requirement of the 1975 Act. The Environment Agency has reserve powers to take direct action where the Reservoir Undertaker has failed to appoint a panel engineer or to undertake safety recommendations. The Environment Agency also has emergency powers to act where it considers that a reservoir is unsafe and immediate action is necessary to protect people and property.

A1.13 Responsibility for reservoir safety ultimately lies with Reservoir Undertakers. A statutory requirement is placed upon the Reservoir Undertaker to employ a Supervising Engineer and an Inspecting Engineer from the panel of specialist engineers. The Supervising Engineer's role is to keep the reservoir under expert observation and to be available at all hours to attend at any incident and advise on the remedial measures to be taken. All reservoirs subject to the 1975 Act, must be inspected by an Inspecting Engineer at least once every 10 years. More frequent inspections may be necessary in some cases and the Supervising Engineer can request an inspection whenever he/she considers it necessary. The Inspecting Engineer must identify and report on any matters which should be monitored by the Supervising Engineer between inspections.

A1.14 Defra is working with the EA in developing a direction (under the Water Act 2003) to reservoir undertakers to produce Flood Plans for use in the event of a dam breach.

### **Flood Forecasting and warning**

A1.15 The EA has well-established arrangements for securing accurate and timely weather forecasts from the Met Office which enable the Agency to perform their flood forecasting and warning services. The Met Office also provides a Storm Tide Forecasting Service to the EA. Information from the Met Office is synthesised with other EA data, including on river flows, flood risk maps, state of catchment saturation, tides times and heights to help forecast whether flooding is likely at any given time or location. Decisions on whether to issue flood warnings also draw on the judgement by EA's flood warning officers or flood defence engineers. The flood warning codes are:

- Flood Watch - Flooding possible. Be aware! Be prepared! Watch out!
- Flood Warning - Flooding expected affecting homes, businesses and main roads. Act now!
- Severe Flood Warning - Severe flooding expected. Imminent danger to life and property. Act now!
- All Clear - An all clear will be issued when flood watches or warnings are no longer in force.

A1.16 Wherever possible the EA aims to issue warnings at least two hours before flooding starts in England. Warnings are disseminated via a number of routes including through:

- direct automatic voice messaging (for which the public have to register) including the new multi-media warning system;
- loudhailer;
- volunteer flood wardens;
- sirens;
- radio and television broadcasts; and
- internet, with the EA's website summarising all warnings in force at any time, updated every 15 minutes.

A1.17 The Environment Agency is considering how to improve the effectiveness of its flood warning systems, including coverage to people who have not taken up the offer of warnings.

### **The Civil Contingencies Act 2004**

A1.18 The Civil Contingencies Act 2004 lists the Environment Agency, as well as the emergency services and local authorities, as Category 1 responders to any emergency, including a flooding emergency. In addition to the risk assessment and planning duties imposed by the Act, there is a duty on Category 1 responders to maintain arrangements to warn the public and to provide information and advice to the public, if an emergency is likely to occur or has occurred. In the context of this Lead Government Department Plan and EA's role, this relates to EA's public awareness campaigns and flood warning systems.



## Responding to flooding on the ground

A1.19 Because lead times are generally short, and whether flooding happens at any particular place and its impacts depends very much on the local circumstances, decisions on what action to take in response are of necessity made at the lowest appropriate level. The main response to flooding on the ground will be for Category 1 responders acting in concert. It will usually be co-ordinated by the Police (through the Gold, Silver and Bronze System which reflects the strategic, tactical and operational levels of managing an incident). This structure allows inter-agency co-ordination between police, ambulance, fire and rescue service, local authority and other agencies. At a point, which they will decide, the police commands will hand over responsibility to the local authority, which is responsible for aftermath and recovery issues locally. Note: Comprehensive details are to be found in the Cabinet Office publication *Emergency Response and Recovery* and in the National Recovery Guidance both of which are on the UK Resilience website.

A1.20 Defra interests at Police Commands will be covered by the Environment Agency and RRTs/GOs (*note: The EA also cover Defra interests where pollution and waste issues arise as a consequence of flooding. Response information can be obtained at the same telephone numbers as given for the national incident room team – Flood Emergencies Telephone Directory*).

## Regional emergency management structures

A1.21 There is an array of emergency management responsibilities are regional level:

- Government Offices of the Regions (GOs) exist in each English Region;
- GOs contain Regional Resilience Teams (RRTs), which provide a regional overview of the flooding impacts and response, including alerting central Government Departments to instances where their input is needed. The RRT's will also liaise with EA. RRTs will normally establish Regional Operations Centres (ROCs) to support local command structures and collect information for central government. The ROC will liaise with the EA.
- GOs may convene Regional Civil Contingencies Committees (RCCCs) to provide regional-level multi-agency co-ordination. Defra FM's interests at RCCCs will be represented by EA.
- Defra FM will appoint the Regional Nominated Co-ordinator (RNC) in the unlikely event that emergency powers are invoked. This is likely to be the Regional Director of the appropriate GO (at least in the first place).
- Regional Resilience Fora (RRFs) are established by Government Offices to discuss civil protection issues from a regional perspective and to create a stronger link between local and central government on resilience issues. RRFs have no role in responding to emergencies, instead focusing on driving

forward the development and coordination of planning for emergencies within each region.

- Local Resilience Fora (LRFs) bring together all Category 1 and 2 responders within a local police area for the purpose of facilitating cooperation in fulfilment of their duties under the Civil Contingencies Act 2004.

The RRFs and LRFs assess the regional and local risk of flooding and the likely impacts and prepare plans for responding accordingly. The EA is represented on both RRFs and LRFs.

**ANNEX 2*****Learning Lessons from the 2007 Floods: Pitt Review recommendations with which a new National Flood Emergency Framework will link***

The following table illustrates the links between the Pitt Review recommendations and the plans for a new National Flood Emergency Framework. Including the list in this document should not, however, be taken as evidence of the Government having accepted those recommendations. A formal Government response to Sir Michael's report and recommendations will follow later in the year.

Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
RECOMMENDATION 14: Local authorities should lead on the management of local flood risk, with the support of the relevant organisations.			✓				✓	
RECOMMENDATION 15: Local authorities should positively tackle local problems of flooding by working with all relevant parties, establishing ownership and legal responsibility.					✓		✓	
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.			✓				✓	
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.	✓			✓	✓		✓	✓
RECOMMENDATION 26: The Government should develop a single set of guidance for local authorities and the public on the use and usefulness of sandbags and other alternatives, rather than leaving the matter wholly to local				✓			✓	

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Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
discretion.								
RECOMMENDATION 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.			✓		✓		✓	✓
RECOMMENDATION 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.			✓	✓			✓	✓
RECOMMENDATION 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.			✓	✓			✓	✓
RECOMMENDATION 36: The Environment Agency should make relevant flood visualisation data, held in electronic map format, available online to Gold and Silver Commands.			✓	✓			✓	✓
RECOMMENDATION 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.			✓	✓			✓	✓
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.					✓	✓	✓	
RECOMMENDATION 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.	✓			✓			✓	
RECOMMENDATION 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.	✓		✓		✓		✓	

Towards a New National Flood Emergency Framework

Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
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.		✓	✓	✓			✓	
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.				✓			✓	
RECOMMENDATION 43: Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding.				✓			✓	
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.			✓	✓	✓		✓	✓
RECOMMENDATION 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.		✓	✓	✓	✓		✓	✓
RECOMMENDATION 46: The rail industry, working through Local Resilience Forums, should develop plans to provide emergency welfare support to passengers stranded on the rail network.		✓	✓	✓	✓		✓	
RECOMMENDATION 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.			✓	✓	✓		✓	
RECOMMENDATION 48: Central government crisis machinery should always be activated if significant wide-area and high-impact flooding is expected or occurs.			✓	✓			✓	

Towards a New National Flood Emergency Framework

Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
RECOMMENDATION 49: A national flooding exercise should take place at the earliest opportunity in order to test the new arrangements which central government departments are putting into place to deal with flooding and infrastructure emergencies.			✓		✓		✓	✓
RECOMMENDATION 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.	✓		✓		✓		✓	✓
RECOMMENDATION 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 exercise within each sector.			✓		✓		✓	
RECOMMENDATION 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.			✓		✓		✓	
RECOMMENDATION 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.			✓		✓		✓	
RECOMMENDATION 61: 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.		✓	✓	✓			✓	✓
RECOMMENDATION 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.				✓			✓	✓

Towards a New National Flood Emergency Framework

Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
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.		✓		✓		✓	✓	✓
RECOMMENDATION 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.			✓	✓			✓	✓
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.			✓		✓	✓	✓	✓
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.			✓	✓		✓	✓	✓
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.			✓	✓			✓	✓
RECOMMENDATION 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.		✓	✓	✓		✓	✓	✓
RECOMMENDATION 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.		✓	✓			✓	✓	
RECOMMENDATION 75: For emergencies spanning more than a single local authority area, Government Offices should ensure coherence and coordination, if necessary, between recovery operations.			✓	✓		✓	✓	✓

Recommendation	Link with part(s) of the proposed National Flood Emergency Framework							
	1	2	3	4	5	6	7	8
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.			✓	✓		✓	✓	
RECOMMENDATION 80: All central government guidance should be updated to reflect the new arrangements for recovery and Local Resilience Forums should plan, train and exercise on this basis.			✓				✓	
RECOMMENDATION 88: The Government should establish a National Resilience Forum to facilitate national level multi-agency planning for flooding and other emergencies.			✓				✓	✓
RECOMMENDATION 92: Local Resilience Forums should evaluate and share lessons from both the response and recovery phases to inform their planning for future emergencies.			✓			✓	✓	