

National Flooding Framework for England Guidance – Summary

First Published in 2014 - awaiting release of new guidance due Summer 2018.

Section One: Understanding flood emergency planning and response

Flooding is a frequent hazard to both life and property. National assessments of flood risk by the Environment Agency states that currently in England:

- One in six homes is at risk of flooding.
- 2.4 million properties are at risk of flooding from fluvial or coastal sources.
- 3 million properties are at risk from pluvial flooding.
- Approximately 600,000 properties are at risk from all three types of flooding.

As well as rivers, sea and surface water, there are significant risks to some communities from groundwater flooding and water from failed or overflowing reservoirs. No area within England can expect to escape flooding in its entirety and its potential to cause; serious harm to human health, property damage, social and economic damage and disruption.

"It is difficult to forecast the exact timing of flooding or the precise nature of its impact. This is particularly true for surface water flooding and flash flooding in river catchments."

Department for Environment, Food and Rural Affairs (2014). The National Flood Emergency Framework for England. London: The National Archives, p.3.

The Framework is intended for use by all those involved in planning for and responding to flooding from:

- The sea;
- Rivers;
- Surface water;
- Groundwater;
- Reservoirs;
- Artificial waterways and canals.

Section Two: What emergency planners and responders need to know about national emergency management

Managing any emergency comprises of three main phases:

1. Preparation (pre-planning)
2. Response (mitigating an immediate risk)
3. Recovery (rebuilding, restoring and rehabilitating)

The response phase comprises of two separate but closely related and overlapping challenges. Crisis Management and Consequence Management. These must be designed to both control and minimise the immediate challenges arising from a flooding incident.

Crisis Management - attempts to prevent or avert an imminent incident, alongside any other preventative or protective measures to mitigate the effects, disruption and damage and to secure the scene of an incident. It will also include actions to be taken to address the immediate effects of an incident e.g. evacuating those at risk. It will last until the situation is brought under control.

Consequence Management - should be run in parallel to crisis management and works to prevent the incident from escalating. It includes managing the wider consequences of an incident e.g. providing shelter to displaced persons.

Incidents are routinely handled by local Category 1 responders without the need for National intervention, this includes incidents of localised flooding. The primary responsibility for planning for and responding to any incident remains with local organisations, acting individually or collectively through the LRF and Strategic Co-ordinating Group. The local multi-agency response to a flooding event will be co-ordinated by the SCG, the Chair of which will normally be the Local Authority Chief Executive or delegated individual with executive authority.

Central Government Involvement for a flooding event would be as follows:

Level of Emergency	Description	Level of Engagement
Catastrophic	Floods affecting a significant proportion of England; thousands of displaced persons; serious damage to critical infrastructure.	COBR and/or Civil Contingencies Committee. Prime Minister or Nominated Secretary of State will lead the response requiring Central Government or the invocation of Emergency Powers.
Serious	Flood in several counties; hundreds of displaced person; actual, or risk of, critical infrastructure disruptions.	Response co-ordinated by COBR by the Lead Government Department. May require a deployment of wider Government resources, with the

		CCS providing overall co-ordination and support on consequence management and recovery issues/
Significant	Floods in more than county, some displace persons and potential risk to critical infrastructure.	Lead Government Department Minister runs the crisis response from their own emergency facilities as appropriate. CCS advises as and when necessary.
Local	Local flooding, small scale evacuation; no risk to critical infrastructure.	No significant Central Government involvement. Normally led by the SCG Chair for larger emergencies.

A Response Co-ordinating Group (ResCG) is likely to be established when an incident affects more than LRF or has the potential to do so. It is a communication tool hosted by Ministry of Housing, Communities and Local Government (MHCLG) Resilience and Emergencies Division (RED). It ensures all organisations have consistent information, can joint risk assess and joint response plan.

The ResCG will not interfere with local C² arrangements and will be set up based on risks identified at the time.

Department for Environment Food and Rural Affairs (DEFRA) is accountable for reporting the overall impacts of flooding during the response phase, and MHCLG during the recovery phase.

Definition of Flooded Properties includes both homes and businesses:

Properties flooded are those where it is considered that water has entered the property:

- Cellars/basements and below ground level floors are included;
- Garages are included if they are connected to the main building. Separate or adjacent garages are not included;
- Includes occupied caravans and park homes, but not tents;

Properties affected by flooding are those where water has entered gardens or surrounding areas which restricts access, or where flooding has disrupted essential services to the property such as sewerage. For businesses this includes those where the flood waters are directly preventing them from trading as usual.

Section 3: What emergency planners and responders need to know about the legal framework

The Flood and Water Management Act 2010 provides for better, more comprehensive management of flood risk management for people, homes and businesses. It helps safeguard community groups from unaffordable rises in surface water drainage charges and protecting water supplies to consumers.

In terms of emergency planning and response at the local level, it places responsibility on the Lead Local Flood Authority, for surface runoff, groundwater and ordinary watercourse flooding.

Section 4: What emergency planners and responders can expect from central Government

National flooding incidents require agencies to work singularly and collectively. The strategic objectives of Central Government will be:

1. React with speed and decisiveness;
2. Respect local knowledge and decision-making wherever possible, without losing sight of the national strategy;
3. Prioritise access to scarce national resources;
4. Use data and information management systems to gain a national picture and support decision making without overburdening front-line responders;
5. Base policy decisions on the best available science and ensure that the processes for providing scientific advice are widely understood and trusted;
6. Draw on existing legislation to respond effectively to the event and consider the need for additional powers;
7. Apply risk assessment methodology and cost benefit analysis within an appropriate economic model to inform decision making;
8. Work with international partners to share information and request assistance if necessary; and
9. Explain policies, plans and practices by communication with interested parties, including the public) comprehensively, clearly and consistently in a transparent and open way that addresses national and local concerns while encouraging and listening to feedback.

Organisation	Preparedness	Response
DEFRA	<ul style="list-style-type: none"> • Building up the departments resilience to shocks and its capacity to lead the response; • Identifying and maintaining the capabilities that local responders and those at each level of crisis management can call upon; • Maintain press/public information contacts, so the Department is in a position to effectively co-ordinate the press/public information effort during a crisis; • Planning for and leading negotiations with the treasury for any additional funds; and • Keeping aware of the changing set of risks, threats and vulnerabilities which bear upon its fields of responsibilities. 	<ul style="list-style-type: none"> • Acting as the focal point for communication between Central Government and SCG(s) on the ground; • Producing a brief, accurate situation report on the nature and scale of the emergency and a handling plan; • Drawing upon and applying the relevant capabilities applicable to the emergency in hand; • Taking whatever executive decisions and actions are needed from the centre to handle the emergency or to help the local responders deal with it; • Acting as the focal point for information flows; • Co-ordinating and disseminating information for the public and the media at the national level; • Accounting to Parliament and leading in the submission of evidence to any subsequent government appointed inquiry; and • Learning and sharing the lessons from the emergency.

Section 5: Tools for flood emergency planners and responders

Product	Delivered By	Flooding Type	Importance
Daily Flood Guidance Statements	Flood Forecasting Centre	All	High - trigger for preparation and action.
Public Flood Warning	Environment Agency	River, coastal and some groundwater	High - trigger for action.
National Severe Weather Warning Service	Met Office	All	High - keep watch and trigger for preparedness.
River and Sea Levels on the internet	Environment Agency	River and coastal	Medium - keep watch.
Targeted Flood Warning Service	Value added resellers with EA data	River and coastal	High - keep watch, trigger for preparedness and action.
Highways England Website	Highways England	All	Low - consequences of flooding.
Rail Disruptions	National Rail Enquiries	All	Low - consequences of flooding.

Surface water flooding happens as a direct result of intense or extreme rainfall. It differs from river flooding in that it can happen before water enters a river or watercourse, or where none exists. Advance warning is difficult as it can happen very quickly when the level of rainfall is more than the drains can handle. The effect of its impact depends on local landscapes and local conditions such as the state of culverts and receiving ground conditions.

Flooding from surface water happens when the local drainage system cannot cope with the rainfall. It is extremely difficult to predict precisely where surface water flooding will happen as it is dependent on:

- Ground levels;
- Rainfall; and
- Local drainage network.

Historically the split in responsibilities between Local Authorities and water companies has meant that there has not been a common approach to the management of drainage systems in urban areas. The Flood and Water Management Act made these roles much clearer.

Water companies and the LLFA's must work together in partnership to manage and map surface water flooding, whilst the Environment Agency has a strategic overview for all types of flooding.

A surface water flood map was published by the EA in 2013 and made available to all Local Authorities, LRFs and partners. This is the primary, national source of information on the risk of surface water flooding.

Section 6: The importance of multi-agency planning

Central Government has drawn up guidance for multi-agency flood planning, based on good practice from a range of existing plans, guidance and documents and lessons learnt from real events and exercises. Guidance has been produced specifically for multi-agency planning, but is a good source of information, advice and guidance for individual or local flood plans.

Plans should focus on at least three groupings of people; the vulnerable, victims (survivors, family and friends) and responder personnel. The health sector, including social care organisations, will be an integral part of ensuring any planning take into account the needs of these people.

Vulnerable people may be less able to help themselves in an emergency than self-reliant people. Those who are vulnerable will vary depending on the nature of the emergency, but plans should consider:

- Those with mobility issues;
- Those with mental health difficulties;
- Those in receipt of social and/or medical care in their own homes; and
- Those with dependents.

Victims of any emergency include not only those directly affected but also those who, as family and friends, suffer bereavement or anxiety from not knowing what has happened.

All plans should consider the welfare of responders at all times.

Plans should aim to reduce, control or mitigate the effects of an emergency. The bulk of planning should consider how to minimise the effects of an emergency, starting with the impact of the event and looking at remedial actions that can be taken to reduce its effects. The plan must look at secondary impacts such as media attention and public response.

Recovery plans should also be developed to reduce the effects of the emergency and ensure long term recovery.

Section 7: Good Communications: planning how you will communication during an incident

A well-informed public is better able to respond to an emergency and to minimise the impact of the emergency on the community. Communication arrangements between responders will need to be planned for, as flooding can often lead to a failure in telecommunications systems. All agencies should assume that telecommunications will fail during a flooding event and a suitable provision for dealing with this should be sought.

Poor communications can be damaging. To damage done to public confidence by the release of inconsistent and contradictory messages can be hard to repair. Similarly, speculation about causes and future developments. In the event of a flooding incident, it is better to say if something is unknown than to guess, particularly if this is going to raise the hopes of those affected.

It is important that any planning considers how CWC will raise the public's awareness prior to an incident, about the risk of flooding and how they may have affected. Such plans will also need to include arrangements to communicate with certain groups of vulnerable people who are dependent on their telephone lines and they will be dealt with if the network fails.

Door-knocking and similar low technology methods will be the most resilient to disruption to telecommunication networks and power. Organisations giving direct instructions to the public, or building managers communication with tenants, allowing the public to receive messages from a known (and generally trusted) source.

However, for techniques such as door-knocking, large numbers of personnel will be required for it to be effective, which will be difficult to sustain for anything other than short periods of time. They will also need to have regard to health and safety implications to ensure any door knocking takes place well before any flooding is expected.

Section 8: Important aspects of flood preparedness

Items for consideration in any flood plan:

1. Vulnerable people - how will they be identified?
2. Sandbags - less effective than other methods to protect property from flood water, they are a useful and flexible method for boosting defences at short notice. All local authorities should communicate to residents their sandbag policy
3. Sewage and sewage systems - local authorities are responsible for co-ordinating welfare to their communities and ensuring all needs are met. It is suggested that an agreement is reached before an event as to who will clean up any sewerage spills as a result of flooding.

Section 9: The health consequences of flooding

Direct	Indirect
Drowning	Carbon monoxide poisoning from fuel driven equipment for drying or pumping out flood water.
Physical trauma from concealed or displace objects	Effects on mental health both acute and long-term
Water shortage and contamination due to loss of water treatment works	Illness associated with disruption and reduced access to healthcare services.
Chemical contamination of flood water	Disruption to livelihoods and income.
Heart attacks	
Electrocution	
Fire	
Infectious diseases from contaminated flood water	
Vector-borne diseases	
Rodent-borne diseases.	

During flooding, sewerage systems may be inundated with flood water.

Consequently flood water in the UK is likely to be contaminated by disease producing bacteria and viruses, but not high-risk enteric infectious diseases such as cholera and typhoid.

The relative risk to people from bacterial contamination of flood water is, therefore low, especially if public health advice is followed. Should raw sewage enter flood water, the diluting and dispersing of the potential sources of infection, further significantly reduces any risk.

Other risks associated with flooding include:

Flood Water and other Hazards	Individual Factors	Damage to Property and Infrastructure
Fast flowing water.	Driving through flood water.	Damage to homes.
Water of unknown depth.	Walking through flood water.	Damage to infrastructure.
Hidden hazards in flood water.	Walking on sea defences.	Population displacement.

Flood water contamination.	Walking on river defences.	Lack of access to health services.
Fallen power lines.	Driving over bridges when water levels are high.	Disrupted food and water supplies.
Fallen trees.	Exposure to electrical hazards.	Disrupted utilities.
Carbon monoxide poisoning.	Incomplete routine hygiene.	Delayed recovery.

Section 10: Flood Rescue

The decision to deploy specialist flood rescue teams, rest with the emergency services and it is their responsibility to assure themselves that any teams they deploy are competent to operate safely in a flooded environment. It is not the responsibility of the local authority.

In the context of flood planning, vulnerable people are defined as those who are unable to help themselves during an emergency.

Will all populations are at risk to the health effects associated with flooding, certain groups may be more vulnerable. Vulnerability to the health effects of flooding is due to complex interaction of factors:

- Severity and rapidity of the flooding;
- Health status and need for regular medical treatment;
- Access and availability of warning;
- Rapidity of response measures; and
- Being located in high-risk areas and high-risk built environments.

Potentially Vulnerable Individual/Group	Examples and Notes	Target via the following
Children	Where children are concerned, whilst at school, the school authorities have duty of care responsibilities. Certain schools will require more attention than others.	Schools through Local Authorities and through their Governing body or proprietor. Creches/playgroups/nurseries.
Older people	Certain sections of the elderly community, including those of ill health requiring regular medication and/or medical equipment.	Residential care homes. Help the Aged. Adult social care.

		Nursing homes.
Mobility impaired	Wheelchair users; leg injuries (e.g. crutches); bedridden/non-movers; slow movers; bariatric patients.	Residential care homes. Charities. NHS providers. Local Authorities.
Mental/Cognitive function impaired	Development disabilities; clinical psychiatric needs' learning disabilities.	Residential care homes. Charities. NHS providers. Local Authorities.
Sensory impaired	Blind or reduced sight; deaf; speech and other communication impaired.	Charities. Local Groups.
Temporarily or permanently ill	Potentially a large group encompassing not only those that need regular medical attention, but those with chronic illnesses that may be exacerbated or destabilised in the event of an evacuation, or because vital medication or equipment was left behind.	NHS providers. GP surgeries. Other health providers. Community health teams.
Individuals supported by health or Local Authorities		Adult social services. Children's social services. GP surgeries.
Individuals cared for by relatives		GP Surgeries. Carers Groups.
Homeless		Shelters. Soup Kitchens.
Pregnant women		GP Surgeries.
Minority language speakers		Community Groups.

		Job Centre Plus.
Tourists		Transport and travel companies. Hoteliers.
Travelling community		Local Authority traveller services. Police Liaison Officer.