



Department
for Environment
Food & Rural Affairs

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Detailed Guidance on Developing a Multi-Agency Flood Plan

June 2011

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Introduction

This guidance replaces the 'Preliminary Guidance on Developing a Multi-Agency Flood Plan' which was published in February 2008 as a stand-alone document. It draws on good practice from a range of existing plans and guidance and feedback from stakeholders in spring 2010 and at the Multi Agency Flood Plan workshop held in January 2010. It has also taken into account the then Government's response to the Pitt Review on the summer 2007 flooding.

It is important to remember that while this guidance provides advice and assistance to help develop Multi-Agency Flood Plans (MAFPs), it is ultimately for Local Resilience Forum (LRF) members to determine what information to include and the level of detail. LRFs are best placed to determine what will work in a real flood.

The guidance sets out the reasons for having MAFPs and the context for developing your plan. But, most importantly, it provides a framework for constructing your plan. It also contains some examples and reference material for you to draw on as appropriate.

Why have specific flood plans?

The Civil Contingencies Act (2004) requires Category One Responders to have plans in place to respond to all emergencies. Emergency plans may take the form of either generic plans that describe a response to a wide range of possible scenarios (e.g. a Major Incident Plan) or specific plans that deal with a particular kind of emergency (e.g. Chemical, Biological, Radiological or Nuclear (CBRN) or Evacuation and Sheltering). A Local Resilience Forum (LRF) will probably have both types depending on how emergency planning has evolved. There may also be area-wide plans (e.g. at county-level) or site/local area specific plans (e.g. at district-level).

For many parts of England and Wales, flooding poses a significant risk and is well recognised within many Community Risk Registers. LRFs are encouraged to develop a specific flood plan to both complement other plans and to provide more detail to generic Major Incident Plans or Strategic Emergency Response Plans. The reason for having a specific flood plan is because of the complex and diverse nature of flooding and the consequences that arise, requiring a comprehensive and often sustained response from a wide range of organisations. This guidance is therefore geared toward helping LRFs to collectively develop a Multi-Agency Flood Plan (MAFP).

About this guidance

This guidance should be used by LRFs to undertake flood response planning, including recovery planning where it relates to flooding. It contains examples of how to set out the various components of a flood plan, all of which have been drawn from current good

practice in the UK. The LRF should decide on the type of flood plan needed (depending on local circumstances) as well as deciding if a MAFP is to supersede or complement existing plans.

This guidance provides advice on flood plan content, where and how to find any relevant information and suggests what government would consider an appropriate level of detail. It should be read in conjunction with the Checklist document (see below) to ensure you have an understanding of what needs to be incorporated into your plan. With minor modifications and the removal of personal data / confidential information, any plan based on this guidance could be suitable for general publication - for example on the LRF website.

Deciding whether a MAFP is 'required' or not, is most sensibly determined at a local level by each Local Resilience Forum (LRF) or a nominated flooding sub-group. For many LRFs a MAFP ought to be produced for each borough or district that has more than 250 properties (residential and/or business) in 'significant and/or moderate' flood risk areas, according to the Environment Agency flood map. It is recommended that, at the very least, a strategic level MAFP be created (for example at a county-wide level) with a target audience being local authority Chief Executives and those with a responsibility in Strategic Co-ordinating Groups ('Gold' level). In many instances, depending on the flood risk (as recorded in a Community Risk Register), it is advisable to complement the Strategic MAFP with tactical level MAFPs providing more detail. These plans would equate to 'Silver' level documents for command and control structures established in a flood event. Alternatively a LRF may choose to produce a single county-level MAFP with a separate annex for each borough/district with greater than 250 properties in 'significant and/or moderate' flood risk areas.

A number of LRFs have provided material for this guidance. You may want to contact them to see if they would be willing to share their plan, or a part of it. Cumbria LRF is, for example, willing to share their plan which was effectively used in responding to the floods in November 2009.

Related resources

There are two related publications which those responsible for constructing MAFPs should find useful.

MAFP Checklist

The first, the MAFP Checklist, is a tabulated summary of the contents of this Guidance and should be used to check the completeness of your MAFP.

Multi-Agency Flood Plans and related emergency plans (evacuation plans, warning and informing plans, business continuity plans and more generic major incident plans for

example) should include a sufficient level of information and detail for it to be considered as being 'satisfactory'. The definition of 'satisfactory' is set out in the Checklist.

To get a copy of the Checklist, email floodemergencies@defra.gsi.gov.uk. The MAFP checklist will be incorporated in the National Flood Emergency Framework in due course.

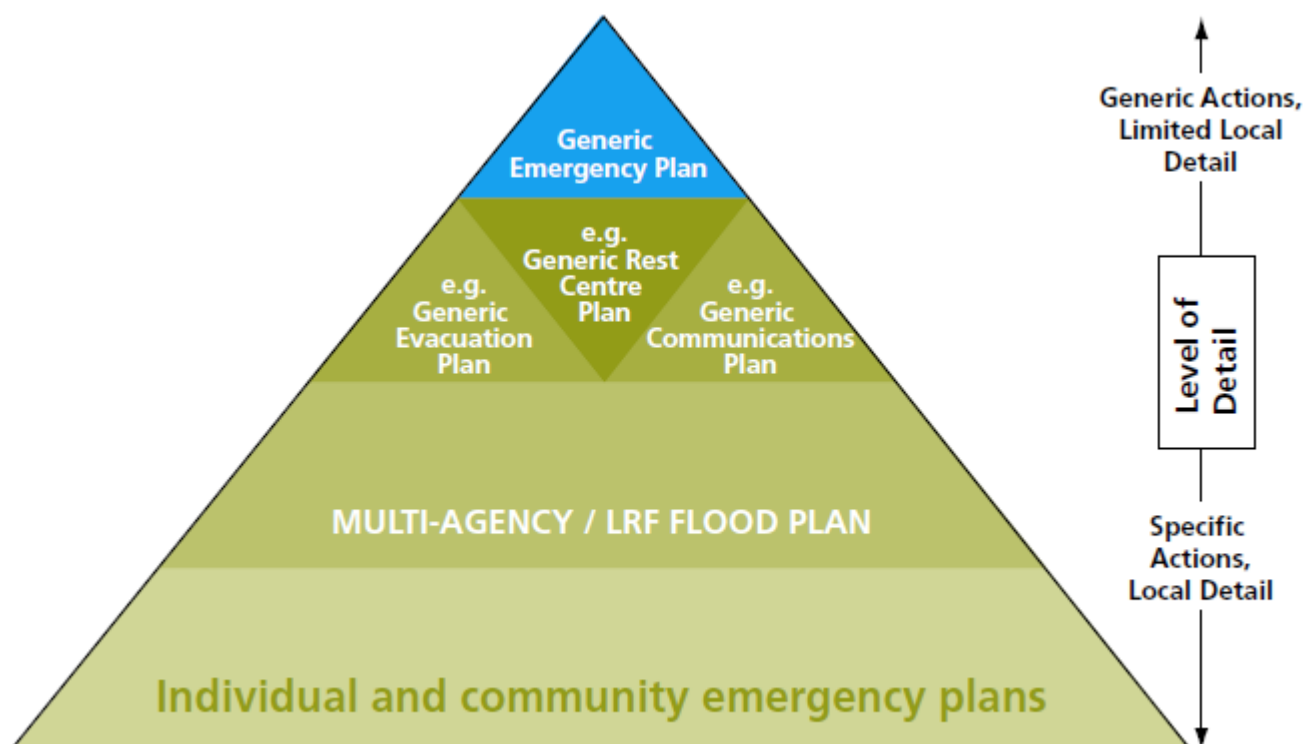
MAFP Templates, Figures & Tables document

The second related document is the separate template, figures and tables document (which will also be incorporated into subsequent versions of this framework, but which you can get now by emailing floodemergencies@defra.gsi.gov.uk). The document provides blank versions of the model tables included in this guidance. You are not obliged to use them but may select or adapt those which best meet your needs.

Flood emergency planning

Development of Multi-Agency Flood Plans (MAFPs) allows all responding parties to work together on an agreed coordinated response to severe flooding. Figure 12.1 shows a hierarchy of emergency plans and how a MAFP might link to other related response plans. This is just an example of some of the plans to be considered but there are others that may also need to be referred to.

Figure 12.1: How a MAFP fits with other emergency plans



Developing the plan

A good plan is the product of a good planning process. In other words, the process of working together to create the plan is as important as the end product. With this in mind, LRFs are encouraged to use “Task and Finish” groups or Flood Working Groups to lead the production of the plan and to encourage involvement of Category One and Two Responders who will have a role in its delivery.

To develop the MAFP, it is recommended that reference is made to the section called **Emergency Planning (Chapter 5) of Emergency Preparedness** - part one of the Civil Contingencies Act (2004).

A working group with representatives from all relevant departments and agencies is a good way to develop a flood plan that considers all the consequences and impacts (short, medium and long term). Local authorities should consider contributions from relevant departments including Emergency Planning, Highways, Drainage, Social Services and Environmental Health. A representative from the Environment Agency’s Flood Incident Management team should also be a member of the working group to provide flood risk and flood warning advice and information. Contributions from Category 2 responders are critical in terms of considering assets and infrastructure in the floodplain that may be impacted by flood water. For example: failure of a pumping station, collapse of a major drain, contamination of water supplies or power failure over large areas are all consequences that need to be worked through as part of developing a MAFP.

Though not a substitute for MAFPs, community flood plans can also be part of the approach to flood risk planning and management in some localities. The community engagement needed to develop such a plan is in itself a very positive process. Further guidance on community flood planning is available from the Environment Agency and related information on community resilience can be found on the **UK Resilience website**.

Consultation and cross boundary considerations

To enable other responders to comment on the plan and, in particular, the links with their own plans, we recommend that the LRF or appropriate working group circulate the plan amongst its members. It is recommended that plans are shared with neighbouring LRFs so that cross boundary issues can be carefully considered. The loss of infrastructure (energy, transport, water assets) often affects adjacent regions and organisational boundaries and jurisdictions are rarely spatially coherent.

Format and style

A flood plan should complement other plans, as stated above. The level of detail will depend on the needs of the responding organisations and the existence of other related emergency response plans. MAFPs should not contain information about the decisions that are made ‘on the day’ when a flood is taking place but should aim to provide a clear

and concise, yet adaptable, response tool under which each responding organisation has clearly defined roles and responsibilities. The most critical part of the plan is the section on “Activation”. This should set out the triggers, and who is expected to do what once certain thresholds are met. It also determines where the high risk, high consequence areas are and how this will influence plan activation and triggers.

The plan should be intuitive so that any professional responder can pick it up and understand what action or response is required in different circumstances. For example, use colour-coded dividers or tabs to help users navigate through the plan together with appropriate use of maps, tables, diagrams and even pictures.

Consider if it would be beneficial for the document to be accessible via the National Resilience Extranet in order to aid document control and distribution, although hard copies should also be available for business continuity reasons and in incident control rooms.

Including maps in your MAFP

A separate folder containing spare / laminated maps may be useful to enable responding officers to remove maps without dismantling the plan. The Environment Agency Flood Incident Management team can advise where it is appropriate to use the flood map and / or flood warning areas as the basis of the maps contained within the plan.

Geographical Information System (GIS) software is a useful way to produce maps to include in your MAFP – see a **Guide to GIS Applications in Integrated Emergency Management**. To save having large numbers of maps in the hard copy of your plan, you could consider saving maps on a CD and storing the disc in with the hard copy of the MAFP. To avoid duplication consider what maps are already available on Environment Agency ‘Gold laptops’ and in Local Flood Warning Plans (e.g. flood zone, flood warning area and surface water maps). You may decide that it would be useful to keep certain hard copies of maps in control rooms too. It is important for the LRF partners to agree what is needed and will work for you in a flood emergency.

Protective marking of sensitive information in MAFPs

In order to facilitate ease of handling and storage of Multi-Agency Flood Plans, the lowest possible protective marking should be applied, consistent with the security of the contained information. Few Multi-Agency Flood Plans are likely to need a protective marking higher than RESTRICTED. In many cases MAFPs can be marked PROTECT, or remain unclassified.

Particular issues to consider in relation to the protective marking of MAFPs:

- Is there information (including maps) which flags infrastructure as Critical National Infrastructure is likely to increase the classification to CONFIDENTIAL or higher?

- Does the MAFP include sensitive personal information (e.g. staff members' home telephone or personal mobile numbers)?
- Does the MAFP include information which could jeopardise the security of physical assets (e.g. access codes to buildings)?
- If it is vital that sensitive information is included in the MAFP, could it be annexed in a separate document (e.g. log of key infrastructure, details of facilities for vulnerable people)?
- If the content of the MAFP warrants it being protectively marked, can an edited, unclassified version be published - for example on the LRF's website?

Advice on which Protective Marking to apply can be found in the **Security Policy Framework** (Cabinet Office, October 2009) and **Security Vetting and Protective Markings: A Guide for Emergency Responders** (Cabinet Office, March 2008).

For guidance on sharing personal data please consult **Data Protection and Sharing: Guidance for Emergency Planners and Responders**.

Constructing your Multi-Agency Flood Plan (MAFP) - context

The following section sets out, in detail, how you may wish to construct your MAFP.

Introduction

This section should be short and cover aspects not covered in subsequent sections. It should: put into context emergency planning in your area or region; explain why the plan is needed; clarify if it supersedes other, previous plans; set out broadly what the plan includes and excludes; and state when the plan will be reviewed.

Each Multi-Agency Flood Plan needs to adequately address river, coastal and surface water flood risk (as defined in Community Risk Registers) and the associated emergency response arrangements. The plan is not expected to include flood risks from:

- foul sewage;
- burst water main;
- canals and private lakes;
- reservoir dam failure (see separate section for guidance on this).

It is useful to include a 'Document control / distribution' table at the front of your MAFP.

Aim and objectives of the plan

This section should broadly describe the purpose of the plan including:

- whether the plan is a strategic or tactical plan;
- the strategic or tactical outcome expected in responding to a flood (i.e. what successful implementation of the plan would look like);
- the different types/sources of flooding and their status within the Community Risk Register; and
- the area covered, preferably with the aid of map(s) that show the flood outline. (Figure 12.2 is an example of this).

The aim and objectives should specify what the plan will and will not be able to achieve. The objectives that you set should follow the SMART principle where possible (i.e. the objectives should be Specific, Measurable, Achievable, Relevant and Time-bounded). For example, it would not be sensible for the plan to state that its objective is to prevent floodwater entering any property as this is likely to be unrealistic and beyond the logistical capabilities of responding organisations.

An example of the 'Aims and Objectives of the Plan' section taken from the Cumbria MAFP (2009) is provided in the Templates, Figures and Tables document.

Figure 12.2: Example overview map of flood risk, taken from the Cumbria Multi-Agency Flood Plan 2009



Ownership and audience

In this section, the person responsible for updating and maintaining the plan should be identified. There should also be clarity on the intended audience and how they will be notified of updates and modifications to the plan.

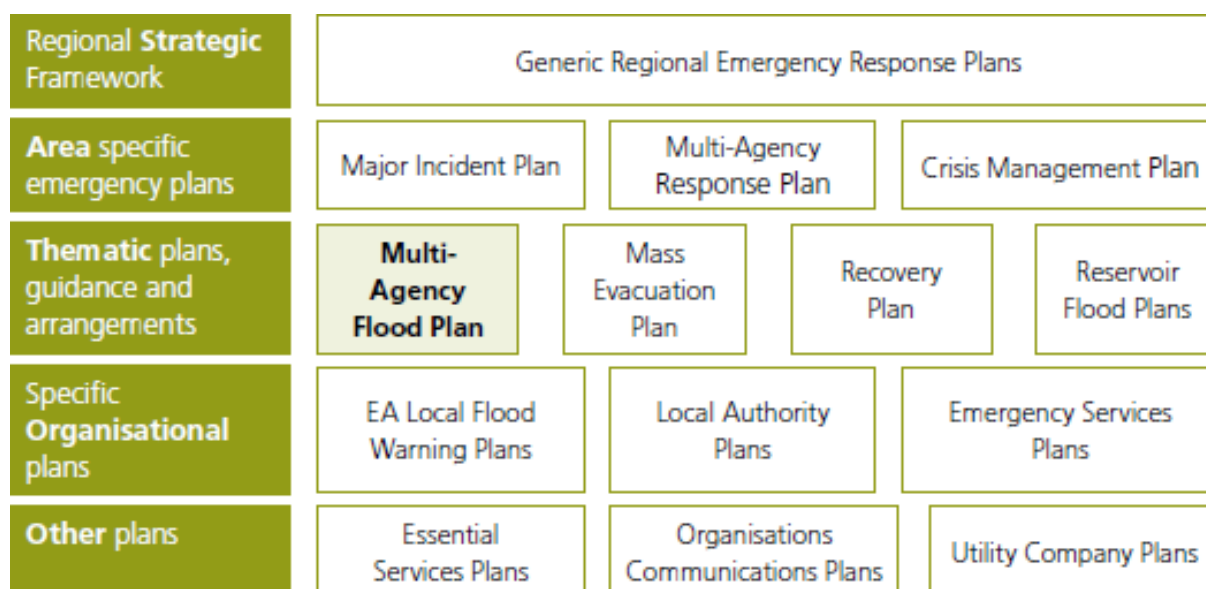
A number of agencies contribute to and jointly own multi-agency plans. Depending on local circumstances, some Local Resilience Forums (LRF) will opt to place the accountability for the plan with the LRF members collectively. If so, the agency/individual responsible for updating and maintaining the plan (often from the local authority or Police Emergency Planning Unit) should be given a clear mandate from the LRF.

Related and interdependent plans

In this section, you should either list other related and interdependent plans or insert a diagram showing the plans and linkages between them.

The plan(s) should not duplicate information that is already available elsewhere so cross-referencing is encouraged. It is important that the MAFP is prepared as part of a complementary set of emergency plans some of which may contain sections on flood response.

Figure 12.3: Emergency Plans – fitting them together



The diagram above (figure 12.3) is an illustration of how to link existing plans covered by your LRF and will help you work out how various plans complement each other and how to avoid duplication. For example, if you have a plan for Warning and Informing or for Evacuation and Sheltering it may be that there is no need to cover these aspects in the MAFP. Similarly, if the roles and responsibilities of the various organisations are set out in

a generic Major Incident Plan covering your LRF, then there is no need to repeat this information. Instead, insert a cross reference and include only specific or additional information that is relevant to a flood response.

The Environment Agency produces the Local Flood Warning Plans included in figure 12.3. All parts of England and Wales have been assessed by the Environment Agency for the level of flood risk from river (fluvial) and coastal flooding and susceptibility to surface water flooding. As part of warning the public where flooding from rivers or the sea is likely to occur, the Environment Agency has identified “flood warning areas”. These are issued with a flood warning when weather forecasts or a rise in river levels dictate. The Environment Agency Local Flood Warning Plans are operational plans and contain detailed information and maps on these areas. These plans are often used by Strategic (gold) and Tactical (silver) controls as reference documents in incident control rooms during a flood. So, in preparing your MAFP, you may want to insert an appropriate cross-reference, or link, to the Environment Agency Local Flood Warning Plans, rather than duplicate information.

The risk of flooding

This section can be separated into subdivisions by ‘community’ or ‘source of flooding’. It should begin with an overview of flood risk for coastal and river flooding in the area and susceptibility to surface water flooding (see figure 12.4 for an example of a fluvial flood risk map and figure 12.5 for an example of a surface water flooding susceptibility map). A strategic plan should as a minimum, contain an overview of susceptibility to surface water flooding; whereas a tactical plan should contain more detail about areas with a higher susceptibility to surface water flooding.

Your Environment Agency representative must be consulted before surface water flooding data is published since there are licence control restrictions.

The risk information should be consistent with the risk assessment information published in the related Community Risk Registers (LRFs should consider the flood risks listed in the local risk assessment guidance when preparing and updating Community Risk Registers). The Civil Contingencies Secretariat publishes this guidance each year to inform this process. The Risk Rating Matrix used for local risk assessment purposes is shown in figure 12.6.

There are a number of information sources you may be able to draw on:

- the Environment Agency’s Local Flood Warning Plans contain information on river, sea and tidal flood risk;
- you may find it useful to consult the tide tables to include information on high tides if applicable;
- where they exist, Surface Water Management Plans should be referred to for information on the risk of surface water flooding and strategies for managing that risk -

upper tier or single tier local authorities lead on producing these plans, in cooperation with other partners;

- historic records will be another useful source of information with regard to surface water and drainage flooding problems;
- water companies may have on-site and/or off-site emergency plans and flood maps; and
- many COMAH (Control of Major Accident Hazards) sites will have risk assessment information that can be considered as part of determining and describing the impact of flooding.

If there are Internal Drainage Boards (IDBs) within your area you need to factor in their response to a flood event. Although IDBs are not category 1 or 2 responders under the Civil Contingencies Act, they are a Drainage Authority and provide flood protection and water level management in areas of special drainage need (low-lying flood risk sensitive areas). They also operate control structures and pumping stations under their jurisdiction, so it is important they are consulted in preparing your plan.

To prepare flood risk in this section of the MAFP, start by compiling flood risk summary sheets for each community together with associated maps (detailed maps will help responders during an incident, to quickly identify the areas that are at risk). The summary sheets should also show known locations of vulnerable groups and sites of key infrastructure.

Figure 12.7 is an example of a community flood risk summary sheet. The example provided shows flood risk areas together with locations of vulnerable groups and critical infrastructure. In communities with significant flood risk, it may be necessary to split communities into smaller sub-areas presented over multiple sheets. These sub-areas should be consistent with the Environment Agency's flood warning areas. Where appropriate, the tables can be adapted to capture information on other types of flood risk as described above.

[illegible]

Areas susceptible to surface water

Legend
Areas Susceptible to Surface Water

- Low
- Intermediate
- High
- Not at Risk

0 200 400 600 800 1000 m

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Figure 12.6: Risk Rating Matrix (from Emergency Preparedness, Annex 4F)

Relative Impact	Catastrophic (5)					
	Significant (4)					
	Moderate (3)					
	Minor (2)					
	Limited (1)					
		Low (1)	Medium-Low (2)	Medium (3)	Medium-High (4)	High (5)
Relative Likelihood						

Risk Category Very High Risk High Risk Medium Risk Low Risk



Figure 12.7: Example of a Community Flood Risk Summary Sheet for a community that is covered by the Environment Agency's flood warning service (taken from Cleveland MAFP).

Note: The table can be adjusted as appropriate for a community not covered by the flood warning service. The table could also be adapted and used to describe other flood risks such as surface water flooding.

Skinningrove – Covered by EA Flood Warnings

There is a significant population at risk of Tidal and Fluvial flooding in Skinningrove. The majority of properties at risk are residential accommodation. Areas at risk border Kilton Beck and include the Zetland Row, Beach Road, New Grove Terrace, Chapel Street, Marine Street and the High Street. The EA identify that 189 households are at risk of flooding. The Fishermans sheds and storage, Community centre and a limited amount of commercial properties are also at risk. The primary risk of flooding will be from a combination of high tides exacerbated by flooding from Kilton Beck, which would back up during high tides.

No. of properties at risk	No. of vulnerable people at risk	Critical vulnerable infrastructure
189 however additional properties outside of flood warning zone may be affected.	Currently unknown.	No critical infrastructure identified, other infrastructure identified below.
No. of properties registered to Flood Warning service	Return Period	Lead Time
35	Unknown	2 – 12 hours

Vulnerable Infrastructure: Road access to Grove Hill Terrace. Substation located at NZ XXX,XXX. Water treatment plant at NZ XXX,XXX and the Riverside Community Centre. Skinningrove bridge has 2 pipelines on the downriver side, believed to be domestic gas supply pipes. Mill Lane, High Street, Beach Road are liable to flooding.

Access and Egress

Primary Access: is via the A174 Skinningrove Road and Mill Lane however this may be disrupted in the event of high water in Kilton Beck.

Alternative Access: A174 via Carlin How, Grove Road, Via A174 Loftus, Hummersea Lane, Skinningrove Bank Road.

In the event of the defences being closed foot access is possible via a footbridge on Mill Lane. Emergency 4x4 access may be possible either via Deepdale Lane and fields or via the footpath leading from the mining museum – Caution this is very narrow see photo (x).

Road Closures: In the event that the bridge at NZ 714,198 is closed there will be no vehicular access to Grove Hill and Zetland Road. It is essential that emergency services control rooms are notified if the bridge is closed as per following procedure. Grove Road from Carlin Howe may also require closing to reduce congestion/risk to members of the community.

Advanced Signage: A174 Brotton Road junction with Skinningrove Road.

Flooding History (if known)

Skinningrove flooded twice in 2000, June and November, on both occasions as a result of high tides combined with significant amounts of rainfall. Resulting in significant damage to a number of residential properties, no lives were lost, however there was a significant impact on the community. Many residents' properties required refurbishment.

Rest Centres

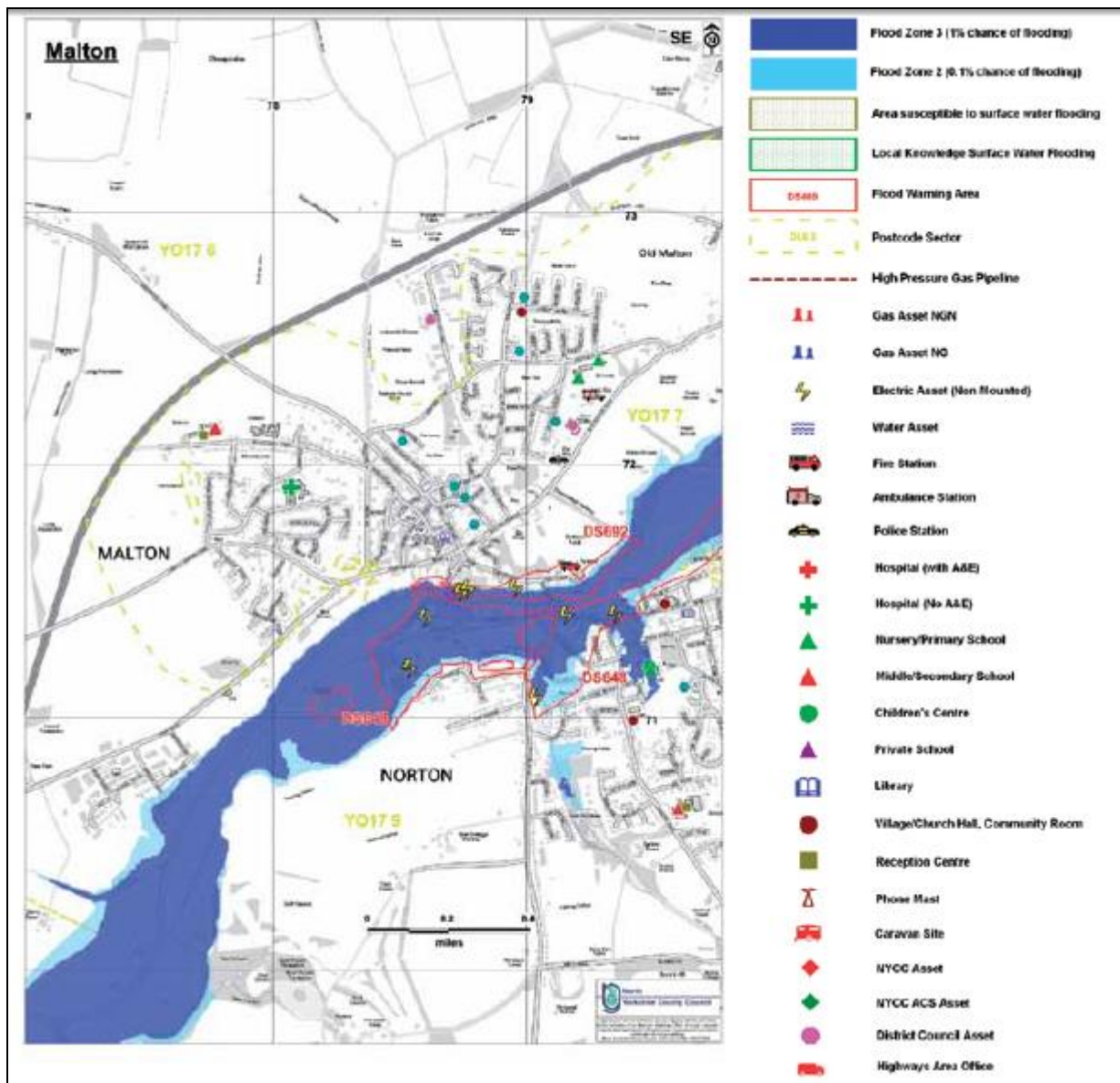
The nearest designated rest centre is Loftus Youth and Community Centre, an alternative

centre is located at Skelton Civic Centre. Both centres are a significant distance and will require transport.

It is likely that the Riverside Community Centre may be opened as a rest centre by members of the community and would provide a good staging location. Consideration should be given to using it as an alternative rest centre/command post.

Vulnerable Populations			
Residents of Zetland Row, Stone Row, Beach Road, The Square, High Street, Chapel Street, New Grove Terrace, Wilson Terrace and Marine Terrace are particularly at risk.			
Evacuation routes have been identified by the community wardens, wardens are also able to assist with the identification of vulnerable community members in private residences.			
Flood Defences / Alleviation Schemes			
Sea defences were refurbished in 2007. The bridge in the centre of the village is likely to be closed by volunteers or Carillion (Council Partners) in the event of high water (6” below the bridge soffit see photo). Closing this bridge stops vehicle access to Zetland Row and Grove Hill.			
In the event of the siren sounding the village should be evacuated immediately. The siren can be automatically activated by the Environment Agency or manually by EA/Carillion or Flood Wardens at the site. Approximately 1,000 sandbags are available in a container in the riverside community centre yard these are for use by the community. Trash Screens are located at NZ758,185 on Kilton Beck, previously debris has blocked the river resulting in sudden surges of water and debris.			
Traffic Management			
Traffic flows will be severely hampered in the event of flooding it is likely that the A174 may also be affected.			
Flood Warning Status Area(s) at risk (refer to map)			
Flood Watch	NA		
Flood Warning	NA		
Severe Flood Warning	121FWFNS078		
Risk Assessment	(Refer to Emergency Preparedness Annex D)		
Likelihood	2		Final Risk Rating (Low – Very High) 4 Low
Impact - Health	3	Mean Impact Score 2	
- Social	3		
- Economic	1		
- Environmental	1		

Figure 12.8: Example map from Ryedale's draft Multi-Agency Flood Response Plan (2010)



Constructing your Multi-Agency Flood Plan (MAFP) - communication planning

Good communications are essential and they need to be planned.

Communication arrangements

Your planning should include communication arrangements between all agencies responding to a flood (where these are not covered in another LRF plan) and warning and informing the public (a key requirement of the Civil Contingencies Act).

A separate Communication Plan, or a Generic Emergency Plan, may contain arrangements to communicate with the public, media and each other. But, if this is not the case, it is recommended that this section of your MAFP should include:

- arrangements for internal communications;
- a documented procedure for managing cross boundary mutual aid;
- a multi-agency strategic media co-ordinating role and Joint Media Strategy;
- points of contact at Strategic/Tactical/Operational (Bronze, Silver and Gold) levels;
- pre-prepared announcements/media releases;
- triggers for communicating with others; and
- contact details (see figures 12.25 and 12.26) and arrangements to set up and operate a helpline or information line.

This section should also cross-refer to LRF telecommunication plans where they exist. Where they don't exist, a section should be inserted in the MAFP on how communications between responding organisations would work in the case of any of the public networks failing (i.e. contingency arrangements).

The MAFP should not contain the arrangements for issuing flood warnings, as this would duplicate the Environment Agency Local Flood Warning Plans.

Communicating with the public about the risk

This section of your MAFP should include ways of raising the public's awareness about the risk of flooding, the arrangements in the MAFP and how they may be affected by floods. If an LRF telecommunications plan does not exist, this section should include plans to communicate with vulnerable people who are dependent on their telephone in the event of network failure.

In specific flood risk areas, the Environment Agency issues flood warnings for river and coastal flood risk to those registered on the Floodline Warnings Direct system. There is also an online service that shows the current flood warning situation in England and Wales - the **website** is updated every fifteen minutes. The Environment Agency also organise public awareness campaigns, arrange for the broadcasting of warning messages on local radio and provide advice on what to do before during and after a flood event.

There is a lot of flooding information on the **Environment Agency's website** including a search facility on postcodes allowing a check on whether a property is in a flood risk area.

Warning the public: loudhailer announcement in case of evacuation

Here is an example of a loudhailer announcement, should evacuation become necessary:

"Flooding of (insert area) is possible within the next few hours. The authorities are considering evacuating residents from properties in (specify roads / etc).

If you occupy property in any of these locations you should make preparations now for a possible evacuation."

(Adapted from the City of York Flood Defence Emergency Response Plan (2002) and from the London Flood Response Strategic Plan (March 2007)).

Sirens

If sirens are used within your area during a flood incident, it may be useful to include some information on them, for example:

Figure 12.9: Siren details

Sirens	
Location	
Ownership	
Trigger for activation	
Who approves the activation	
What does it mean	
What action is required and by whom	

General public advice

Your plan should also include the need to reinforce the Environment Agency's public messages on what to do in the event of possible or actual flooding, which is reproduced below.

Figure 12.10: What to do in the event of possible or actual flooding

Before a flood

Prepare a Flood kit and include the following:

- Pack a small bag with essential belongings and include warm clothes, torch (check batteries), radio (wind up or battery powered), food, water, other drink, mobile phone (pre input useful numbers), any medicines that you might need to take, any important documents that you have and a first aid kit. Keep this bag easily accessible;
- Collect personal belongings, including insurance and bank details, and essential telephone numbers together, and keep them in a waterproof bag;
- Move people, pets, valuables and sentimental items upstairs or in a high place downstairs;
- Keep a separate list of useful telephone numbers to hand (this should include your local Council, your insurance company and **Floodline – 0845 988 1188**);
- Find out where and how to turn off your Gas and Electricity. Ensure that you switch it off if

flooding is imminent before evacuating;

- If possible, move electrical equipment and furniture upstairs;
- Any furniture that you cannot move upstairs, try to raise well off the floor;
- Alert neighbours and assist the elderly, infirm and those with small children;
- Block doorways and air bricks;
- Avoid walking and driving through floodwater, there could be hidden hazards; and
- Keep up to date with local radio for further information and announcements and via **Floodline 0845 988 1188**;

During a flood

- Continue to listen to situation updates on your local radio and via **Floodline 0845 988 1188**;
- Keep dry and out of floodwater if possible;
- Stay in your property, if safe to do so, until advised otherwise by the emergency services or the floodwater has receded;
- Do not walk or drive through flowing floodwater;
- If it is necessary to walk through shallow floodwater, take care for hidden holes, obstacles or other hazards;
- Do not walk on river banks, sea defences or cross bridges over torrential rivers;
- Avoid contact with floodwater and wash any exposed parts before handling food or attending to wounds; and
- If possible, move electrical equipment and furniture upstairs.

If evacuation becomes necessary

- Stay calm and do not panic;
- Police officers and / or other officials will try to visit all properties at risk to advise on the requirement to evacuate;
- If road conditions permit, move vehicles to unaffected areas and ask friends / family if you can share their parking facilities;
- You will hear about your evacuation point for transport and the location of the reception centre either verbally or by a leaflet;
- Try to check that any elderly / vulnerable family members or neighbours know about the

evacuation;

- Try to inform family members / friends as to where you are evacuating; and
- Listen to the advice of the authorities and follow any instructions to leave a property.

After a flood / returning home

- Contact your insurers as soon as possible and follow their advice. Most insurers have a 24hr helpline. Do not throw away damaged goods until your insurer has authorised you to do so. It is a good idea to take photographs of the damage;
- Check the safety of electricity and gas before use. A qualified electrician needs to check any electrical equipment and circuits that have been exposed to floodwater;
- Avoid contact with any remaining floodwater or items having had contact with floodwater unless wearing protective gloves / clothing;
- Stay in your property, if safe to do so, until advised otherwise by the emergency services or the floodwater has receded;
- Do not walk or drive through flowing floodwater;
- If it is necessary to walk through shallow floodwater, take care for hidden holes, obstacles or other hazards;
- Do not walk on river banks, sea defences or cross bridges over torrential rivers;
- Avoid contact with floodwater and wash any exposed parts before handling food or attending to wounds; and
- If possible, move electrical equipment and furniture upstairs.

If evacuation becomes necessary

- Stay calm and do not panic;
- Police officers and / or other officials will try to visit all properties at risk to advise on the requirement to evacuate;
- If road conditions permit, move vehicles to unaffected areas and ask friends / family if you can share their parking facilities;
- You will hear about your evacuation point for transport and the location of the reception centre either verbally or by a leaflet;
- Try to check that any elderly / vulnerable family members or neighbours know about the evacuation;
- Try to inform family members / friends as to where you are evacuating; and

- Listen to the advice of the authorities and follow any instructions to leave a property.

After a flood / returning home

- Contact your insurers as soon as possible and follow their advice. Most insurers have a 24hr helpline. Do not throw away damaged goods until your insurer has authorised you to do so. It is a good idea to take photographs of the damage;
- Check the safety of electricity and gas before use. A qualified electrician needs to check any electrical equipment and circuits that have been exposed to floodwater;
- Avoid contact with any remaining floodwater or items having had contact with floodwater unless wearing protective gloves / clothing;
- Flash severe warnings issued by the Met Office;
- Early severe warnings issued by the Met Office;
- Environment Agency flood warnings;
- Reports of flooding from the public; and
- River levels on the Internet (near real-time river levels data published on the Environment Agency website) - not a trigger but useful supporting information.

For more information on these triggers and how they could be of use, please refer to Section 5: Tools for flood emergency planners and responders. Information about the Flood Forecasting Centre and its services can be found in sections 4 and 5 of this Framework.

Triggers need to be linked to specific actions. In the context of your MAFP, these may include:

- alert and standby procedures;
- people to notify / inform;
- instructions for the opening of control centres; and
- other generic actions, depending on the scale of the incident.

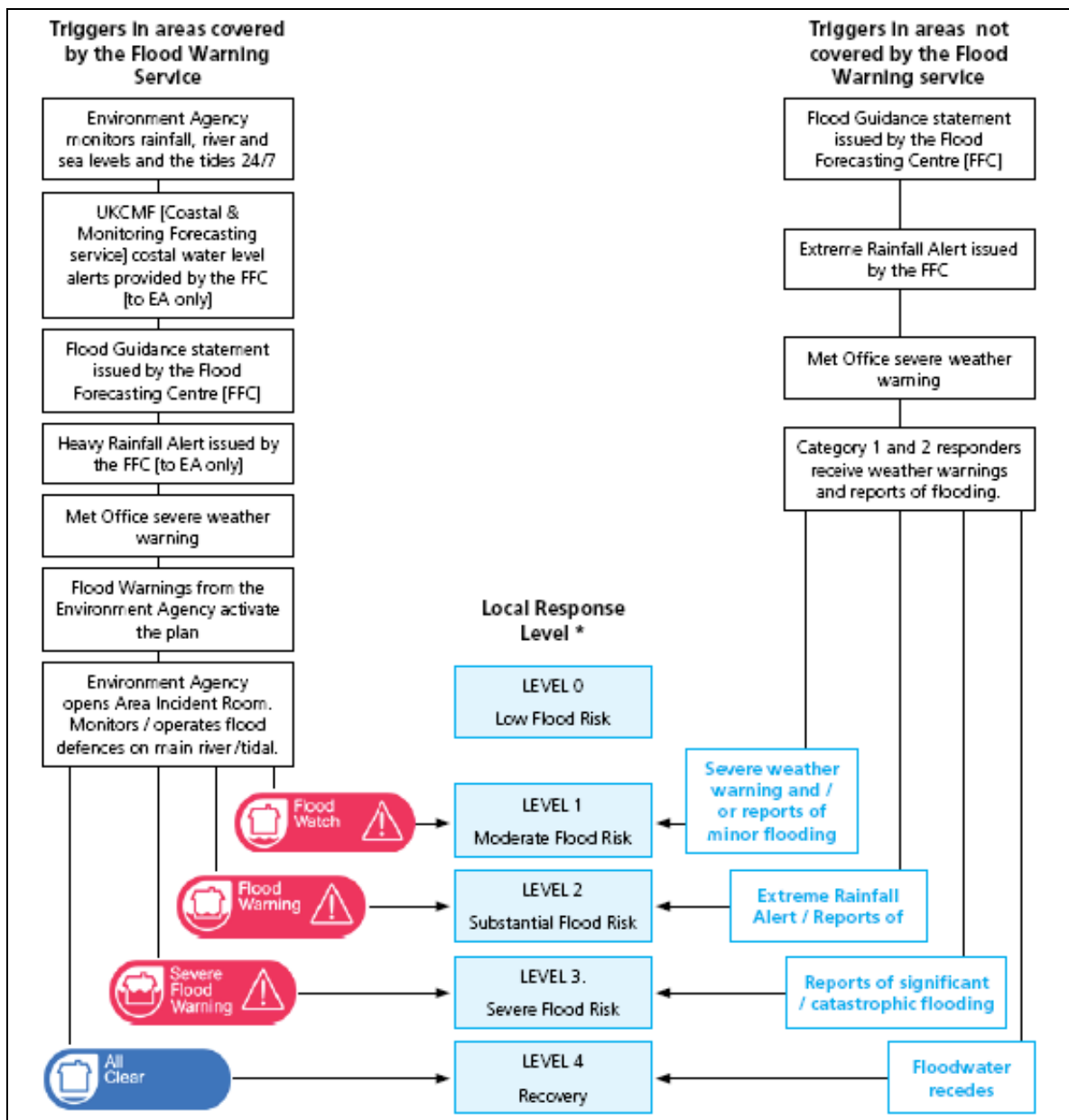
Figure 12.11 is an example of qualitative triggers and generic actions for flood warning service areas and other areas. It is important to specify different response levels and the associated generic actions so that everybody is aware of the scale of response expected, proportionate to the severity of the incident. Suggested Local Response level definitions are given in Figure 12.12.

What do flood warnings mean and what do responders do?

The Environment Agency operates a flood warning service in most areas at risk of flooding from rivers and the sea (see section 4 - What you can expect from the Environment Agency). If flooding is forecast, warnings are issued using a set of four easily recognisable codes. In coastal zones there is an assumed 8 hour lead time for overtopping of coastal defences from storm tides.

Comprehensive details are contained in the Local Flood Warning Plan maintained by the Environment Agency with the support of the members of the Flood Warning Planning Groups. That plan is intended to assist wider dissemination and understanding of flood warning arrangements and systems and is the prime reference document in this respect.

Figure 12.11: Example plan triggers and generic actions using qualitative impact measures



*Please refer to Figure 12.12 for “Local Response Level Definitions”.

Figure 12.12: Local Response Level Definitions Example taken from Barnet 2010 MAFP

An alert level describes the expected scale of response to a flood incident. These could be defined as:

Local Response Level	Trigger	Actual or forecast Impact	Response
Level 0 (Low flood risk)	No flood warning / watches and / or no warnings of severe weather in force that	No flooding occurring	No specific response, normal awareness of possible flood risk

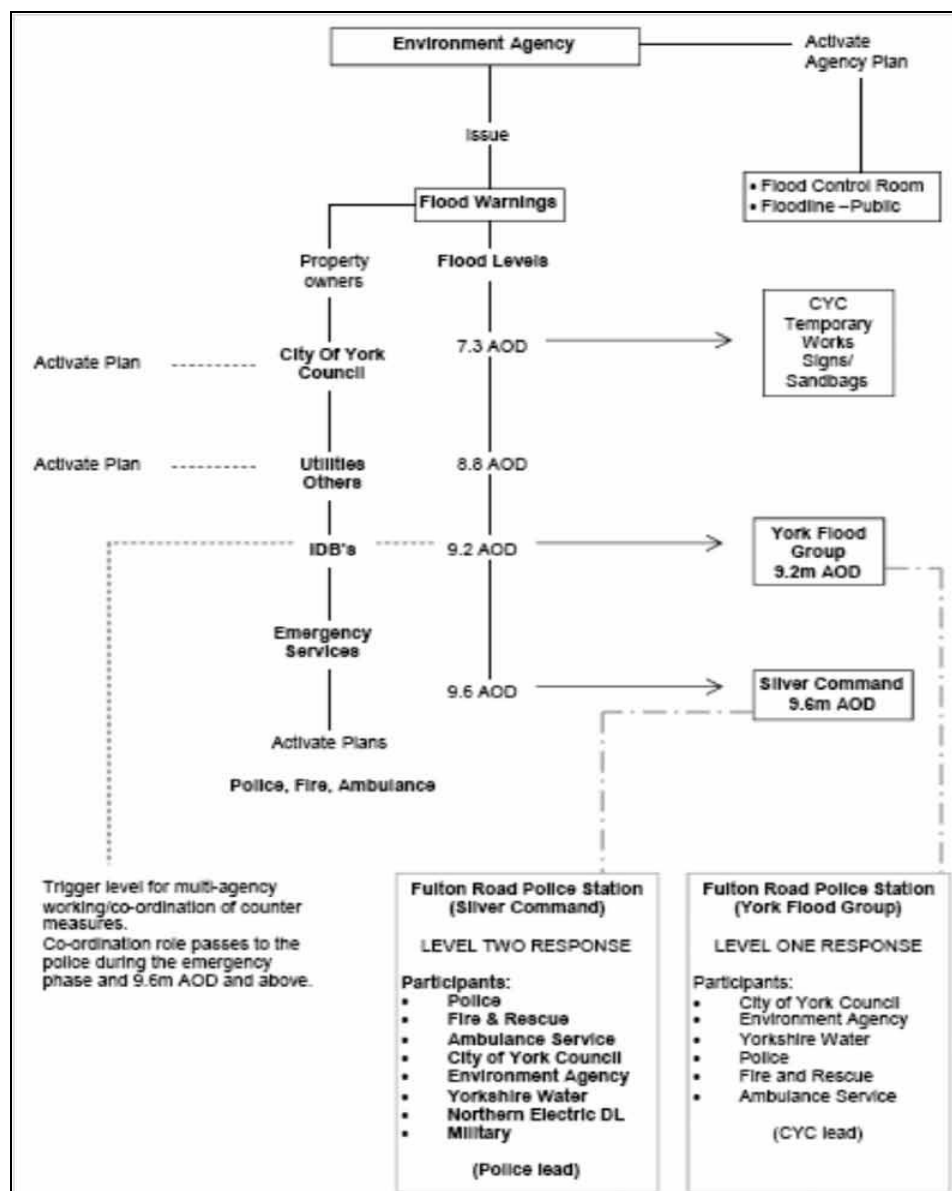
	may result in flooding		
Level 1 (Moderate flood risk)	Flood warnings in force, And / or Warnings of severe weather in force that may result in flooding And / or Reports of minor impact flooding.	Low impact flooding of fields, gardens and minor roads.	Individual responders of flood plans and procedures may be activated Some routine or preparatory responses may be underway, e.g. diversion of minor roads, duty officers put on standby, resources mobilised Heighten awareness of flood risk
Level 2 (Substantial flood risk)	Flood warnings in force, And / or Warnings of severe weather in force that are likely to result in flooding And / or Reports of property flooding.	As level 1, plus High impact flooding which may result in risk to life, homes and businesses.	As for level 1, plus: Multi Agency Food Plan (MAFP) activated Responders undertake actions continued in MAFP Consider the need for police led Multi-agency co-ordination.
Level 3 (Severe flood risk)	Severe flood warnings in force, And / or Warnings of severe weather in force that are highly likely to result in flooding And / or Reports of significant, catastrophic flooding.	As level 2, plus: Very high impact flooding which may result in extreme danger to life and property.	As for level 2, plus: Police co-ordinate multi-agency response Multi-agency control centre open. Consider the need to set up a recovery working group alongside the SCG (Gold).
Level 4 (Recovery)	Flood warnings / severe flood warnings downgraded And / or All clears issued And / or No warnings of severe weather in force that	Flood water receding.	Local authority to facilitate rehabilitation of the community and restoration of the community.

	may result in flooding.		
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Figure 12.13 is an example taken from the City of York Flood Defence Emergency Response Plan (2010) of quantitative measures that can replace qualitative descriptions to reflect local impacts and circumstances, such as, river levels, number of properties or specific infrastructure at risk (the AOD (Above Ordnance Datum) levels relate to gauge board readings on a bridge over the Ouse in the centre of York). This is appropriate in this location as the river has a slow rate of rise. Therefore, the multi-agency group has time to implement a detailed response strategy. In rapid response catchments – examples are Boscastle and Carlisle, where rapid flooding occurred in 2004 and 2005 respectively - a quantitative measure diagram would not be suitable due to the speed at which river levels increase. Responders need to be very sure that certain levels would trigger a particular action.

Figure 12.13: Example of triggers and generic actions using quantitative impact measures

(Extracted from the City of York Flood Defence Emergency Response Plan (January 2010))



Planning roles and responsibilities

This section follows directly on from plan activation triggers and should set out the actions, roles and responsibilities of responding agencies in relation to these triggers - for each community at risk from flooding.

Actions, roles and responsibilities

The level of detail included in this section is a matter for you and your LRF. Non-flood specific or generic roles and responsibilities should be as set out in other strategic or generic emergency plans and not repeated here - relevant references or hyperlinks should be added.

You should focus on providing a summary of the flood specific roles and responsibilities of Category One and Two Responders at the planning stage and during the event. Consider circumstances where there may be a need for changes in role. For example, the Environment Agency has primary responsibility for flooding from rivers, whereas the local authority and/or Water Company has primary responsibility for flooding from drains and sewers.

Figure 12.14 provides an example format for presenting flood specific roles and responsibilities. All LRFs are strongly advised to include tables, similar to those in Figures 12.14 through to 12.17 in their Multi-Agency Flood Plan. For most, this will form the backbone of the response plan to flooding in a given area.

Your plan will need to describe as far as possible the expected scale of response and associated actions to be taken in the event of flooding (if not included in other generic plans). This should include the:

- specific actions that organisations and responding agencies will take at different stages of a flooding incident;
- activation of plans and procedures;
- opening of incident rooms, command and control centres;
- lines of communication;
- criteria for making decisions to prioritise and allocate resources;
- availability of relevant resources and skills; and
- environmental responsibilities.

Environmental considerations

It is important to identify and list in the 'consequence' column of your version of Figure 12.16 any anticipated environmental impacts directly resulting from the flood, for example:

- disposal of animal carcasses if farmland is flooded;
- disposal of flood damaged personal property;

- disposal of silt, gravel and other flood debris;
- disposal of contaminated sand bags;
- saline intrusion of fresh water Sites of Special Scientific Interest; and
- pollution if sewage / industrial sites are flooded or pollution from flooded vehicles, stored fertilisers etc.

All of the above aspects should be linked back to recovery plans where more detail on the actions needed should be set out.

Health and Safety considerations

All organisations need to ensure that they have appropriate and adequate resources that can be sustained over a protracted period if required - in particular, staff resource, personal protective equipment and accommodation. This needs to be clearly set out in your plan, or a cross reference made to the related plan.

All responding organisations, including voluntary agencies should be aware of the risks associated with working in or nearby to floodwater, such as:

- the health issues when contact is made with contaminated floodwater;
- the risk of electrocution;
- hidden objects or trip hazards beneath the water;
- the power of water and how easy it is to become unbalanced; and
- drowning or hypothermia.

When preparing your MAFP, LRF members should consider the specific health and safety issues relating to flood risk in the area that should be included in the plan. In all cases, individuals and teams that are expected to play a role in flood response and recovery should receive appropriate training in relevant health and safety policies and procedures. The MAFP is not expected to set out such policies and procedures, but you may wish to include some or all of them depending on your local area.

Figure 12.14: Examples of Roles and Responsibilities Specific to Type of Flooding. Adapted from Barnet MAFP, 2010

Organisation	Risk	Preplanning	Minor Flood (medium Consequence)	Major Flood (high Consequence)	Notes	Recovery
Environment Agency	Fluvial, Coastal, tidal	Prepare and maintain London Local Flood Plan; Advise and Development proposals; update food risk maps;	Issue warnings; monitor catchments; operate defences; support LAs and emergency	(As for minor flood)		Support LAs and community as resources allow; Repair any damaged defences.

		support LRF food risk assessments; maintain watercourse capacity; maintain flood management structures. Convene a Flood Advisory Service teleconference	services.			
Fire Brigade (LFB)	Fluvial flooding	Standard operational response to a special service. Responsibilities under the Fire and Rescue Services Act 2004 LESLP guidance LFB business continuity plans.	Liaise with other agencies and prioritise response and resources. Give assistance with pumping. Give priority to flooding involving a risk of life, fire or explosion. Environment issues e.g. chemicals, hospitals & homes and the elderly, public utilities and food storage, heritage sites.	As with Minor flood. Inform relevant officers. Assess resources. Follow LESLP procedures. Attend Gold and other co-ordinated response meetings. Request assistance from the RNLI for search & rescue where there is a potential risk to life.		Assist other agencies to minimise the impact on the community.

Figure 12.15: Response Actions, Roles and Responsibilities. Example adapted from the Barnet MAFP, 2010

For a more comprehensive example see the Templates, Figures and Tables Document.

Response Actions, Roles and Responsibilities

Emergency Response

The different agencies responding to a flood event will carry out their duties as stated in the LESLP Procedure Manual (with focus on Annex E of the Recovery Plan). The following pages state the

different responding agencies responsibilities with regards to a flood event.			
Metropolitan Police Service (MPS)	<p>LESLP guidance states the MPS have the following responsibilities:</p> <ul style="list-style-type: none"> • Saving of Life; • Co-ordination of the emergency services, local authorities and other organisations; • Secure, protect and preserve the scene and control sightseers and traffic the use of cordons; • Investigation of the incident and obtaining and securing of evidence. Collection and distribution of casualty information; • Identification of the dead on behalf of HM Coroner; • Prevention of crime; • Family liaison; • Short term measures to restore normality; and • In the event of warning and informing communities at risk of flooding not being effective, where practicable, assistance will be given. 	<p>Major incident declaration to be made by Blue light or local authority personnel.</p> <p>Major incident procedure – command and control- provision of Gold co-ordination chair and location.</p> <p>Consideration as to Casualty bureau etc.</p> <p>Use of Gold media cell.</p>	<p>Recovery cell built into command and control protocols.</p>
London Fire Brigade (LFB)	<p>LESLP guidance states the LFB have the following responsibilities:</p> <ul style="list-style-type: none"> • Life saving through response and rescue • Fire fighting and fire prevention • Rendering humanitarian services • Detection, identification, monitoring and management of hazardous materials and protecting the environment • Provision of qualified 	<p>When the multi-agency flood plan is activated, and it is a major incident, the LFB will liaise with other agencies to prioritise their response.</p>	<p>Assist other agencies to minimise the impact on community.</p> <p>Access to boats through the Fire & Rescue Service.</p>

	<p>scientific advice in relation to HAZMAT incidents.</p> <ul style="list-style-type: none"> • Salvage and damage control • Safety management within the inner cordon • To maintain emergency service cover throughout the LFB area and return to a state of normality at the earliest time • In a flood event assistance will be given to relevant agencies, particularly the local authority, to minimise the effects of major flooding on the community • In a flood event assistance may be given with pumping operations, depending on the situation, with priority being given to calls where flooding involves a risk to life, or fire or explosion and to calls from hospitals, residential homes for the elderly, public utilities and food storage. 		
National Grid. Gas – Electric Distribution/ transmission	<ul style="list-style-type: none"> • Set up Gold/Silver/Bronze command as appropriate, on site. • Co-operate with responding agencies to isolate supplies and make safe as necessary. <p>Where possible reconfiguration of supplies</p> <p>Possible lock-out of regulators to maintain pressures in gas mains.</p> <p>Wait for water to recede, re-establish supplies</p>	<p>Prepare for recovery</p> <p>Invoke mutual aid and resource plans.</p>	<p>Return to service.</p>

Environment Agency (EA)	<p>EA have the lead role for monitoring catchments and providing flood warnings where practical and possible, to protect people and property at risk.</p> <p>Operate defences</p> <p>When possible the EA will attend command centres to provide face- to –face support and information on where a flood is happening and what can be expected to happen during the course of the flood event.</p> <p>Where resources are available the EA will help local authorities and the emergency services in dealing with the effects of flooding, such as evacuation and distributing flood protection.</p>		<p>Support LA's and community as resources allow</p> <p>Repair and damages defences.</p>
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Figure 12.16: Example of a Multi-Agency Flood Risk Matrix (example adapted from Barnet MAPF, 2010)

Barnet – Multi-Agency Flood Risk Matrix

Scenario	Risk Rating	Response Level	Trigger	Action by			EA	LA	FRS	Police	PCT	Other
Assess Area/ Structure	Risk	Likelihood	Impact	Rating	Level	Trigger	Consequence					
Silkstream/ Deansbrook Mill Hill to Brent Reservoir	Flood Warnings 269 properties 1707 NW9	4	4	Very High	1	Met – severe weather warning EA – Flood Watch/ Warning Notification by Resident	Floodwater to extend indicated on EA local flood map. Flooding of Edgware Community Hospital, Merrivale Care Home, Burnt Oak station, Library & GP Surgeries.	Work with partners, emergency services; assist with evacuation warning & informing, issue media advice.	Loudhailer Door knocking leaflet drop to public Suitable Rest Centre highlighted	Place crews on stand-by Locate boats, & dinghies and other equipment for evacuation.	Borough Watch warning, PCSOs to work with other agencies in assisting public with evacuation, Assist with evacuation of hospital. Identify vulnerable people	
River Brent & Mutton Brook East Finchley to Brent Reservoir	Flood Warnings 114 Properties 387 N2 & NW11	4	3	High	2	Met – severe weather warning EA – Flood Watch / Warning	Floodwater to extend to indicated areas on EA map, Brent Cross Shopping Centre, Kerem School & Nursery GP Surgery, Hampstead Garden Synagogue.	Issue flood Warnings, inspect & monitor area.	Work with Highway /Police / transport services to keep traffic flowing, sandbags to protect council property	Work from the nearest local LFB station.	Disseminated flooding information, keep transport routes clear Inform home visiting services, GP surgeries relocate at risk properties	
Dollis Brook Barnet to Hendon	Flood Warning 138 Properties 193 N12 NW7 & NW4	4	2	High	3	Met – severe weather warning EA – Flood Watch/ Warning	Historical floodwater area as EA local flood water map, private properties, no infrastructure	Issue Flood Warnings, patrol and monitor area.	Lalo & other support team to assist with evacuation transport, provide catering, blankets etc.			

Figure 12.17: Flood Warning Actions. Example taken from the Barnet 2010 MAFP

(An example of actions taken by various organisations when a specified flood warning level is in force)

Flood Watch			
Who	What	When	Comments
Environment Agency (EA)	Issue Alert	Combination of water levels and forecast suggest flooding likely. Property flooding not expected.	Precautionary: may not result in flooding.
Met Police (MPS)	Communication of EA message to patrolling officers.	Upon receipt of EA message by BOCU control room.	Additional tasks undertaken as requested by EA.
London Fire Brigade (LFB)	Fire Brigade mobilising control promulgates warning within the LFB. Prepare for possible batch mobilising. Assess Resources	On receipt of information from the EA.	
NHS/PCT	Alert relevant organisations (acute/ mh/GPs) to be aware	As soon as possible	Information regarding flood warning should be reported to NHS London emergency planning.
London Ambulance Service (LAS)	Monitor known high risk areas with reference to EA flood maps.	Issue of Flood Watch	
Thames Water Three Valleys BT	Note risks Set up a flood watch team Convene Threat Assessment Response group		Situation monitored Ongoing monitoring Impact of customer service Assessed * Review of impact to other service provider customers- develop a single industry view- People and operations at risk identified following risk assessment

TFL - HA	Monitor situation but no specific actions		
Transport Networks			

Vulnerable People

This section should set out the mechanism for sharing information about vulnerable people in various facilities (not individuals' details) who may need specific assistance during a flood incident. Figure 12.18 is included to help identify specific facilities.

The Cabinet Office **Guidance on Identifying People who are Vulnerable in a Crisis** (Cabinet Office 2008) should be referred to for more detail, including guidance on identifying who is vulnerable. The Emergency Preparedness Guidance to Part 1 of the Civil Contingencies Act (Section 2.2) defines vulnerable people as "those that are less able to help themselves in the circumstances of an emergency".

Information on the location and needs of vulnerable individuals is held and maintained by various agencies/organisations and it is not necessary, or sensible, to catalogue or duplicate this information in the MAFP. The contact details of such agencies/organisations should be included in the table for which figure 12.25 is a model. A mechanism for sharing this information during an emergency should be agreed within the LRF.

A key issue that needs to be considered is the approach to warning and informing vulnerable people. Such warnings must be accessible which may require a number of tailored communications approaches.

It is recommended that an appropriate map showing the likely whereabouts of vulnerable groups (e.g. schools, nurseries, care homes) is included in your MAFP. And it is advisable to contact the operators of those sites to see if they have any existing arrangements in place, including evacuation plans. If so, these should be recorded. It is also important to record the contact details of certain key people, such as key holders, flood wardens and community groups.

Figure 12.18: Example Log sheet of Vulnerable People in various facilities

Facilities	Address	Useful Contact number(s)#	Support needed in Emergency	Communication Issues	Comments	Grid Ref ##
Newcastle Primary School <do the same for all groups> e.g. Schools	Newcastle Street, Newcastle NE1 1AA	Mr S Smith (key holder) (daytime) 0191 111 1111	Evacuation for pupils with special needs	(e.g. Sensory impaired)	300 Children No evacuation plan	xxx yyy

Nurseries		(m) 07877				
Care homes		345 862				
Surgeries / clinics						
Areas with high concentrations of elderly						
Caravan parks & campsites						

Critical infrastructure

The UK's critical national infrastructure comprises nine sectors: water, energy, transport, telecommunications, health, food, financial services, emergency services and government. The loss of some infrastructure assets as a result of flooding may have a significant impact and it is vital that this is assessed.

So this section of your MAFP should identify all infrastructure at risk from flooding that is critical to the local population, or to other parts of the country. Figure 12.19 provides a model for capturing locations. Include maps as far as possible. But bear in mind that the details on the sites you include is likely to determine the protective marking which should be applied to the document.

When planning for potential flooding on or near a site, LRFs should work with infrastructure owners and operators to identify the at risk locations; their business continuity management plans; the potential consequences of loss of the asset; and the key dependencies and interdependencies with other sectors (water supply relies on the availability of electricity for example). Local knowledge is important.

It is recommended that you prioritise the criticality of key infrastructure as part of your planning. For some infrastructure sectors there may be sufficient resilience at local level to manage likely disruption caused by flooding (supermarkets are unlikely to be quickly exhausted of food for example), in which case you do not need to focus on them in your MAFP.

Where LRF telecommunication plans exist, these should be referred to as part of the MAFP. The MAFP should cross reference to other emergency plans as needed and then set out the specific actions falling to responding agencies in relation to each of the related risks.

MAFPs should be shared with neighbouring LRFs in view of the fact that cross boundary issues need to be carefully considered. Disruption to infrastructure can affect a number of adjacent communities, and beyond.

Guidance on understanding and improving the resilience of infrastructure to natural hazards will be made available on the National Resilience Extranet (NRE).

Figure 12.19: Example of Critical Infrastructure Log sheet

Key Infrastructure	Address	Useful Contact number(s)#	Details	Grid Reference ##
e.g. Newcastle Sub-Station	Main Street, Newcastle, NE1 1BB	Mrs P Smith (key holder) (daytime) 0191 111 1111 (m) 07877 345 862	Owned by NEDL - Supplies 500 properties in south Hull	XXX YYY

All contact details should also be included in an appendix.

Complete the Log Sheet for all key sites and infrastructure, including for example:

- electricity sub-stations;
- telephone exchanges;
- police stations;
- fire stations;
- hospitals / A&Es;
- ambulance stations;
- local authority offices/depots;
- shopping centres;
- COMAH sites;
- prisons;
- water treatment works;
- sewage treatment works; and
- transport hubs.

Being rescued and cared for in an emergency

In this section you should record the arrangements for evacuating and sheltering people at risk from flooding. In doing so, you need to differentiate between 'Rescue' and 'Evacuation and Sheltering' (although the latter may be adequately covered by a Generic Evacuation and Sheltering Plan).

It is recommended that the Environment Agency is consulted for advice on flood depth information which could be useful for planning evacuation routes.

If a Generic Evacuation and Sheltering Plan exists, it should not be replicated in the MAFP. But if not, the MAFP should identify:

- vehicles and resources available for evacuation;
- safe evacuation routes and rendezvous points, preferably marked on a map;
- traffic management arrangements for known flood prone roads;

- shelters/reception centres to accommodate displaced victims (plus any valuables they may bring, including essential medication and pets);
- details of evacuation plans operated by others;
- issues regarding the longer-term recovery of people, supplies and services;
- issues regarding the evacuation and sheltering of pets, welfare of livestock and zoos;
- a method of tracking displaced people, distribution of supplies and services; and
- the needs of faith, religious, cultural and minority ethnic groups and communities and foreign nationals.

The relevant local authority team would identify the most appropriate rest centres. Reception/rest centres should be marked on the appropriate map in your plan.

For further guidance on evacuation planning, refer to the **Evacuation and Shelter Guidance** (2006) on the UK Resilience Website.

Figure 12.20 is an example of basic evacuation and sheltering arrangements.

Figure 12.20: Example Evacuation and Sheltering Arrangements (adapt to suit local arrangements)

Reception / rest centres / shelter	Community being evacuated	Potential no. of evacuees (i.e. those at flood risk)	Routes and distance from evacuee rendezvous point	Resources available at facility	Facility contact number / key holder	O/S Grid Reference
Hexham School	Rivers Estate Main Street	134 213	River Road 0.5 miles Main Street 1 mile	Shelter, catering, food & blankets for 200, 12 toilets, Telephones, 25 car spaces 2 kennels, 2 mini-buses on site (Bus Co A: 0191 111 1111)	077770 777777 (Jo Bloggs)	Refer to map (add cross reference)
Blyth Sports Centre	Upper Blyth Lower Blyth	39 122	Blyth Street 1 mile North Street 1.5 miles	Shelter, catering, food & blankets for 500, 32 toilets, Telephones, 45 car	077770 777777 (John Smith)	Refer to map (add cross reference).

				spaces 0 kennels, 3 buses on site (Bus Co. B: 0191 222 2222)		
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Planning assumptions for evacuation need to be agreed within your LRF, on the basis of national guidance, and included within the MAFP. For example:

Evacuation and emergency sheltering and accommodation: As little as one hour warning given to emergency services for evacuation. Assumes X% of people leave the area spontaneously and stay with relatives/friends (includes holidaymakers leaving the affected area to return home); Y% use available hotels in safe areas (tourists are vacated to give rooms to local residents); Z% need assisted sheltering for up to 6 months.

In the event of evacuation being necessary, you will also want to ensure there are processes for marking those premises as having been checked. In doing so, it's important to bear in mind that: (a) you shouldn't damage the property – as well as the potential legal implications, some owners will take exception to the use of paint markings on their premises; and (b) any markings which are used should be designed to limit the risk of looting.

Examples of records that you might want to keep are set out below.

Figure 12.21: Premises marking (extracted from the London Flood Response Strategic Plan)

Premises Marking Aide Memoir	
S	Premises secure and no answer
E	Premises entered and checked
O	Occupants have not been traced
T	Occupants have been traced elsewhere
X	Occupants refuse to leave
M	Occupants awaiting medical evacuation
✓	Occupants have been evacuated
>	Premises have been re-occupied
Markings should be: As large as possible (to assist quick observation / identification from the street) Displayed on the left side of the door In chronological order – top to bottom As close as possible to eye level Clearly visible to a person observing the premises from the front or normal side of approach	

By wax crayons or similar waterproof marking

Figure 12.22: Example of a Checked Record

FLOODING INCIDENT – PREMISES CHECKED RECORD				
LOCATION		Use rear of form for any additional information like babies/infants, pets, guide/hearing dogs, walking aids, non English speaking etc.		
Town/Sector (Area of search):		Tom Town TT1 2AB		
Street of Multi-occupancy Premises Checked:		Sam Street		
Date/Time Checked:		10/10/10 / 18.30		
Team Ref./Officer Completing:		A Team / Mr T		
Property No. or Name	Last Marking Symbol on Premises or 'None'	OCCUPANTS		
		Number in premises	Names	Vulnerable Status Y/N
Gransden	None	2	Mr Harry Brown Mrs Lilly Brown	N Y – blind
44	S	3	Mr David Jones Mrs Tina Jones Miss Laura Jones	N N N

Recovery

This section should describe how the recovery from a flood incident is to be managed.

National Recovery Guidance (including a Recovery Plan Guidance Template, detailed Topic Sheets, and Case Studies) has been published on the UK Resilience website, and it is recommended that this guidance is used to help complete the recovery part of your MAFP. If there is no existing generic recovery plan, then the flood plan should outline the arrangements for managing the recovery, both short and long term.

The National Recovery Guidance provides advice on how the recovery phase can be co-ordinated (including the handover from response to recovery). It also includes a draft Terms of Reference for a Recovery Co-ordinating Group and suggestions on sub-group structures.

The Recovery Co-ordinating Group will need to prioritise the various needs identified by each sub-group and allocate resources appropriately so that the community returns to normality as soon as possible. Common issues following flooding include:

- clean up and waste disposal;
- repairs to public assets/infrastructure – schools, buildings, roads, bridges;
- restoration of power, communications and water;
- domestic and business insurance issues;
- displaced businesses; and
- humanitarian assistance needs including homeless/displaced residents and psychological impacts.

Detailed Topic Sheets on all these issues can be found in the National Recovery Guidance.

Training and exercising

This section should include the training needs and a schedule of training for all organisations involved in the operation of your MAFP. Figure 12.23 is a model table for this.

It is essential to train responding officers in their roles and responsibilities before they need to use the plan during an exercise or an actual event. Exercises aim to validate the plans, train staff and test procedures. Such exercises may be internal, or tied into other multi-agency exercises organised by the Local Resilience Forum. They should confirm the roles and responsibilities of responding agencies, as well as the adequacy of communications, resources and equipment. It may be helpful to invite non-technical observers and/or community groups to attend these exercises.

It is recommended that exercising this plan at operational and strategic levels is undertaken whenever there is a major revision, or at least every three years.

Please refer to the **Exercise Planners Guide** for further information on exercising your plans.

Figure 12.23: Example Training and Exercise Schedule

Organiser	Title of exercise	Type	Date	Relevant lessons or link
S Smith Emergency Planning Unit	Waterworks	Table top	01/07/2006	Require better communication between responding agencies – refer to new multi-agency plan
P Evans Environment Agency	Waterside	Discussion	09/09/2007	

N Jenkins Fire & Rescue	Waterwheel	Live	06/10/2008	
J Jones Police	Watercress	Control Post	14/02/2009	

Plan Sign Off and Revision

All organisations / departments that contribute to the plan should approve the MAFP and final sign off should be agreed by the LRF as a multi-agency group. The same organisations that have contributed to the plan should also commit to reviewing and updating the plan - as and when necessary and, ideally, at least annually - to make sure everything is still up to date and relevant.

Constructing and maintaining your MAFP is a collective responsibility. Responsibility for updating the plan, however, often sits with the local authority or Police Emergency Planning Unit. The LRF should ensure there is clarity – and, where necessary a mandate – so that individuals or organisations know that they have primary responsibility to maintain and update the plan.

Important records to maintain

There are some key records that need to be maintained in order for your MAFP to remain up-to-date and usable.

Contact details of key personnel

Where a separate contacts database or directory is not available, your MAFP should include a list of key internal and external contacts. Job titles, as opposed to individuals' names, will make it easier to keep the plan up-to-date.

Figure 12.24 shows an example contact list with a relatively small amount of detail. Figure 12.25 shows a more comprehensive example adapted from the Multi-Agency Response Plan for Flooding in Cumbria (2006).

Figure 12.24: Example Contact Details of Key Personnel (place Dept/Organisation in alphabetical order)

Department / Organisation	Post title	Contact number	Secondary contact (name / number)
Electricity			
Environment Agency	Flood Incident Management Team	444 5689	Incident room 569 7856

	Leader		
Gas	Highways Manager	236 4578 0777 777 7777	Deputy 236 4577 0777 777 7778
Highways			
IDB			
Police	Duty Inspector	478 5623	Incident Room 395 1687
Social Services	Duty Officer	236 8989 0777 666 6666	Duty Officer 236 8989 0777 667 6677
Telephone			
Water			

Figure 12.25: Example of contact details, adapted from the Multi-Agency Response Plan for Flooding in Cumbria (2006)

Organisation Name:	Naydon Council	Date & Issue No.	21/07/07 No.1
Address	Naydon House, Naydon, NA4 5TG		
Event Contact Details	Duty Officer contacted on 07777 777 777		
Non event contact details	Emergency Planning Department 0191 222 555		
Event Role	In accordance with role defined in this plan		
Event Responsibility	As above		
Major Incident Plan invoked when:	Properties are affected and / or danger to public		
PR handling	Refer to Generic Communication Plan		
Response			
Flood Watch	Situation noted, operational staff advised		
Flood Warning	Trigger levels inspected. Contractor call out as necessary		
Severe Flood Warning	Action as appropriate		
All Clear	Action as appropriate		
Actions deployed post event	Community clean up team responsible for post event		
Available resources			

Sandbags	200 filled, 2000 unfilled in Naydon Depot
Staff	2 initially, increasing to 8
Other	2 cars, 2 vans
Availability to provide cross boundary support	Have provided sandbags to other Councils in the past
Person responsible for maintaining form	Mr F Smith – Emergency Planning Department

Location of control centres

We suggest that the flood plan should identify the triggers for opening control centres, and their locations including:

- Environment Agency incident rooms;
- local authority control centres;
- multi-agency operational (Bronze) rendezvous points;
- multi-agency tactical (Silver) commands; and
- multi-agency strategic (Gold) commands.

It's obvious that control centres should not be located in flood risk areas, but mistakes have been made in the past. And you should consider whether the proposed building receives power from utilities within the flood plain, or relies on telecommunications hubs that may be vulnerable. You may want to identify a contingency (back-up) facility in case the primary location is not fit for use during a flood.

Your MAFP should include all the necessary information to find and gain entry into the control centres, for example:

- address (include the post code for ease of use with satellite navigation systems);
- telephone number;
- key holder information;
- access details;
- security information (i.e. fobs / security codes); and
- parking arrangements.

It may also be useful to have a grab bag containing resources that will be needed by officers attending the command / control centres.

Resource availability

The following is an example list of a record of the sort of resources which may be available from organisations / agencies included within the MAFP. It is not intended to record specific numbers or volumes, but provides a record of where to go if specific resources are needed.

Figure 12.26: Resources

Resource	Who / Where	Contact Number
Sandbags	Local authority, Environment Agency	
Boats	Fire and Rescue Service, Local Authority, Coast Guard, Environment Agency	
Pumps	Fire, Local Authority, Environment Agency	
Transport	Environment Agency, Local Authority, Police, Fire, Ambulance	