Local Government Group

Preliminary Framework to assist the development of the Local Strategy for Flood Risk Management

'A Living Document'

February 2011

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Executive Summary

Flood and coastal erosion risk in England is increasing due to climate change and development in areas at risk. It is not possible to prevent all flooding or coastal erosion, but there are actions that can be taken to manage these risks and reduce the impacts that they may have on communities.

This framework, produced by the Local Government Group, will be of particular interest to lead local flood authorities as designated by the Flood and Water Management Act 2010. However, it is expected that all flood and coastal management organisations in England will find areas of the document relevant.

While avoiding prescription, this framework is structured to inform lead local flood authorities of the key local flood risk management issues that should be considered in the development of their own local strategy. It builds on existing approaches to flood and coastal erosion risk management (FCERM) and promotes the use of a wider range of measures to manage risk.

In the development of local strategy, lead local flood authorities should balance the needs of communities, the economy and the environment. It will form the framework within which communities have a greater say in local risk management decisions.

The local strategy, in combination with the national strategy will encourage more effective risk management by enabling people, communities, business and the public sector to work together to:

- ensure a clear understanding of the risks of flooding and erosion, nationally and locally, so that investment in risk management can be prioritised more effectively;
- set out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the residual risk;
- encourage innovative management of flood and coastal erosion risks, taking account of the needs of communities and the environment;
- form links between the local flood risk management strategy and local spatial planning;
- ensure that emergency plans and responses to flood incidents are effective and that communities are able to respond properly to flood warnings; and
- help communities to recover more quickly and effectively after incidents.

It will do this by acting as the evidence base for the decisions and actions required for managing flood risk. Therefore the local strategies will need to be developed with communities to ensure a better understanding of local risk management, co-ordinated planning and sustainability. It will also emphasise the need to balance national and local activities and funding.

The Local Government Group welcomes any views or feedback on this framework, but emphasises that it is a ‘living document’. The need for additional review and maintenance to the content of this framework is recognised as legislation, national strategy and other changes occur in FCERM emerge.

Foreword

The Flood and Water Management Act gives lead local flood authorities very welcome new powers to help manage local flood risk in a more strategic way. It acknowledges the central role of local authorities in co-ordinating action at the local level and places a duty to co-operate on key partners to support authorities in their new role.

Some councillors and councils will already have experience of the effects and aftermath of flooding; others may have seen reports on TV and been thankful that it was not happening in their area. In some places, such as low lying coast or near major rivers, the risk of flooding is obvious; in built-up areas where local watercourses are hidden in culverts, risks may not be apparent. Recent events have shown that flooding from surface water and rivers, or coastal inundation are possibilities that many communities face. So, it is important that all communities have a better awareness and understanding of flooding and the actions they can take to minimise risk. We must ensure that existing risk is managed well and decisions that councils and their partners take do not increase risk either in their own area or within wider catchments. It is essential that we all take a more strategic approach to the way we manage flood risk and grasp the opportunity to demonstrate leadership in reducing this risk.

The duty to produce a local strategy for flood risk management is the key requirement on lead flood authorities. Each local strategy will set out a clear vision for managing flood risk and will reflect local circumstances such as the level of risk and the potential impacts of flooding.

The Local Government Group believes that the local government sector should take the lead in its areas of responsibility. It is important that we make a start in improving flood risk management. We have produced this Framework to help Lead Local Flood Authorities develop their strategies to manage local flood risks under the Flood and Water Management Act 2010. We are pleased to acknowledge the support and advice we have received from the Environment Agency and Defra in developing the Framework. It has been published by the LGA's Inland Flood Risk Management Group, which advises the Local Government Group's Environment and Housing Programme Board.

Some local authorities have already demonstrated excellent leadership on flood risk management and the progress they have made has helped to inform this Framework. We hope that the Framework will provide a useful guide for all flood authorities in developing their local strategy and building their capacity to manage flooding more effectively in the future.

Cllr Mike Haines
Chair, LGA Inland Flood Risk Management Group

Acknowledgements

The Local Government Group is grateful to the organisations that have supported and contributed to this 'living document'. The Inland Flood Risk Management Group has produced this Framework through its Officer Network. The project was led by local authority officers in Somerset, Lincolnshire, Essex, Hampshire and Gloucestershire, and supported by colleagues in the Welsh Local Government Association, the Environment Agency, and the Department for Environment, Food, and Rural Affairs.

The organisations that contributed to the development and review of this document include:

Essex County Council
Gloucestershire County Council
Hampshire County Council
Hertfordshire County Council
Lincolnshire County Council
Local Government Association (LGA) / Local Government Group (LGG)
Somerset County Council
Welsh Local Government Association (WLGA)

Department for Communities and Local Government (DCLG)
Department for Environment, Food, and Rural Affairs (Defra)

Environment Agency

URS/Scott Wilson - Environment and Natural Resources

Introduction

Flooding is a natural phenomenon, the adverse consequences of which can be exacerbated by poor management of the landscape and the environment. The problems of flooding can be made worse if we fail to properly address the risk.

Flooding by its very nature is unpredictable in location and severity. Dealing with uncertainties that are effectively out of our control can be challenging. However, flood *risk* is something that can be understood and its effects are generally predictable. This means that the impacts can be mitigated, up to a point, and response and recovery can be more effective and efficient. Whilst this framework acknowledges that flooding is a natural process, over time local authorities will increase their level of understanding of local flood risk management and of the level of risk posed by flooding to community safety.

This framework aims to provide the tools and signposting to enable lead local flood authorities in England to consider what actions they might include in the development of their local strategy to reduce, manage and mitigate the effects of flooding. Regrettably, it is not possible to prevent all flooding and erosion. This is a fundamental issue which relates to expectation management, and it should be at the forefront of lead local flood authority thinking, especially when engaging with communities.

A key principle of this framework is the need for lead local flood authorities to adopt adaptive management techniques. Their local flood risk strategies will need to be treated as 'living documents'. As new technical information associated with flood risk management evolves, and real events occur, the strategy will need to change to take this new information into account. Adaptive management for flood risk reduction requires high quality, well organised and accessible technical information. Exactly the same principles will be applied to this framework document and the LG Group will make necessary provision for review, maintenance and update of this guidance.

Local flood risk management strategies will be informed by ongoing programme reviews, economic impact risk assessments, information from real flooding events, and a systematic approach for assessing risk to areas that depend on flood protection infrastructure. As lead local flood authorities gain a more complete understanding of the condition of their flood protection assets and the associated flood risk, strategy implementation will be adjusted accordingly. Adaptive management approaches to strategy implementation require a commitment to information management. Emerging data, maps, and studies will need to be maintained in an accessible and organised format. Informed decision-making will ensure that limited financial resources will be directed to the highest demonstrable areas of risk within each lead local flood authority area.

Lead local flood authorities should build on their long history of coordinating and partnering with stakeholders and risk management partners to reduce inland flood risk and contribute towards sustainable development. Pre-existing partnerships and relationships will be strengthened while new collaborative opportunities will be developed.

The local flood risk management strategy will encourage lead local flood authorities to provide a wider range of measures to manage local flooding in a co-ordinated way that balances the needs of communities, the economy and the environment.

How to use this framework

This framework will be of particular interest to lead local flood authorities as defined in the Flood and Water Management Act 2010. However, it is expected that all flood and coastal management organisations in England will find areas of the document useful.

Whilst this framework is not specifically directed at local authorities in Wales, the LG Group has worked closely with the Welsh Local Government Association in its development. In due course, the Welsh Assembly Government will consider issuing similar guidance that considers how the national and local strategies relate to one another with respect to the needs of communities in Wales.

This framework is structured to inform lead local flood authorities of key local flood risk management issues that should be considered in the development of their own local strategy. The LG Group recognises the differing social, economic, political and geographical factors that affect decision-making in local authorities. As such, this guidance is not intended to be prescriptive or directive, rather it is intended to raise key issues for consideration and application to the specific conditions that exist locally.

In summary, the objectives of this framework are:

- to develop guidance to support all lead local flood authorities in England when preparing the local strategy consistent with Section 9 of the Flood and Water Management Act 2010;
- to help local authorities identify early actions to reduce flood risk;
- to link to the national strategy and comment on how local strategies will inform ongoing development;
- to consider data and information sharing, management, and co-operation;
- to provide guidance on how to communicate with the public, raise awareness, and encourage local leadership;
- to encourage cross boundary working and consideration of risks and management actions that cut across political boundaries;
- to provide advice on the scale of Strategic Environmental Assessment (SEA) needed; and
- to provide advice on partnerships and governance arrangements.

Where specific activities are identified within this framework, which lead local flood authorities might wish to consider when developing their local strategy, they are highlighted in the following format:

What you need to consider for your local strategy....

Case studies are highlighted in the following format:

Case Study

There are many documents sign-posted from this framework; the majority of which are in the form of web-based hyperlinks differentiated by text that is underlined and highlighted in blue.

This is a 'living document' and legislation and other guidance continues to be developed. This document will be regularly maintained to ensure it remains up-to-date and accurate.

If you have any feedback, or would like other information to be contained in the framework, please email Vanessa Goodchild-Bradley at the LG Group. (Vanessa.goodchildbradley@local.gov.uk).

Background

In June 2008, Sir Michael Pitt published his final report: 'Learning Lessons from the 2007 Floods', which called for urgent and fundamental changes in the way the country is adapting to the increased risk of flooding. The report states that local authorities should play a major role in the management of local flood risk, taking the lead in tackling problems of local flooding and co-ordinating all relevant agencies.

The Flood and Water Management Act 2010 is an important part of the Government's response to the Pitt Report. The Act is intended to create a more comprehensive and risk based regime for managing the risk of flood and coastal erosion. In light of this, local authorities will take on new powers extending the existing responsibilities for local flood risk management.

Local flood risk is defined as a risk of flood arising from surface run-off, groundwater, or an ordinary watercourse, which includes a lake or pond which flows into an ordinary watercourse. The Environment Agency is responsible for managing the risk of flooding from the sea and main rivers, and also for regulating the safety of reservoirs. Where there is an interface between the sea and main rivers with local flood risk sources (for example, tide locking) it is the responsibility of the lead local flood authority to consider the impacts and consequences.

The Act gives County Councils or Unitary Authorities a new leadership role in local flood risk management. They have become the lead local flood authority, with responsibility for developing, maintaining and applying a local flood risk strategy. This clarifies who is responsible for local flood risk and enables effective partnerships to be formed between the lead local flood authority and the other relevant authorities.

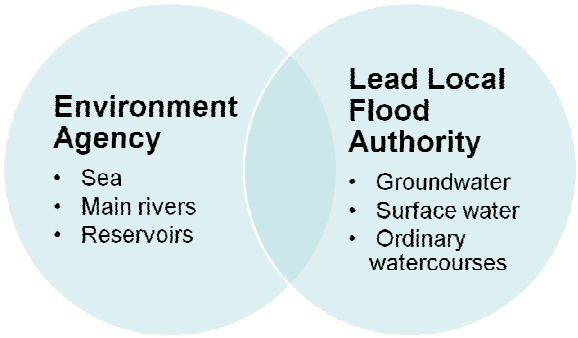


Figure 1 – Responsibilities for the Environment Agency and lead local flood authorities

Lead local flood authorities will also be required to:

- develop, maintain and apply a local flood risk strategy;
- investigate all flooding incidents, where deemed to be necessary;
- maintain a register of assets relevant to flooding;
- approve drainage systems for construction work, in their capacity as SuDS Approving Bodies (SABs), and adopt and maintain SuDS; and
- cooperate with other FCERM authorities, for example through building partnerships and ensuring effective multi-agency working.

Sir Michael Pitt's Review recommended that the lead local flood authority should bring together all relevant bodies to help manage local flood risk. The important roles played by district councils, internal drainage boards, highway authorities and water companies are also recognised in the Act and these bodies, together with the Environment Agency, are identified as risk management authorities.

On behalf of the relevant Government Minister, the Environment Agency is required to develop a national strategy for the management of coastal erosion and all sources of flood risk for England.

All lead local flood authorities in England are required to develop, maintain (which includes updating and reviewing), apply, and monitor the application of a strategy for local flood risk in their area that is consistent with the national strategy. They must also prepare a summary of the strategy.

In the production of the local strategy, lead local flood authorities must consult and involve other affected risk management authorities, as well as the public, and they may provide guidance about the application of the strategy in their areas. In preparing the strategy and any guidance, lead local flood authorities must also have regard to guidance issued by the Secretary of State.

Legislative context

This section is a quick guide to the legislative changes that have occurred because of the two key pieces of legislation, the Flood and Water Management Act and the Flood Risk Regulations 2009. It also highlights other pieces of legislation that should be considered when developing the strategy. It should be used to help determine what roles local risk management authorities should have in the strategy (and perhaps provide guidance on how they can achieve them) and to advise what other pieces of legislation should be considered and perhaps referred to in the strategy.

Introduction
Following Royal Assent in April 2010 the Flood and Water Management Bill became an Act of Parliament. As a consequence, upper tier local authorities have taken on new powers and duties extending their previous responsibilities for flood risk management and will therefore need to take resource and organisational decisions to prepare for this emerging statutory duty.

The two key drivers behind the new legislation are the review in to the summer 2007 floods by Sir Michael Pitt, most often referred to as the Pitt Review, and the other is the EU Floods Directive, which has been transposed into UK law by the Flood Risk Regulations, 2009**.**

In June 2008, Sir Michael Pitt published his final report: 'Learning Lessons from the 2007 Floods', which called for urgent and fundamental changes in the way the country is adapting to the increased risk of flooding. The report includes 92 recommendations, of which 21 are specifically designated to local authorities.

The floods in summer 2007 proved that there were significant gaps in the powers held by various bodies in trying to reduce and respond to the risk of flooding. The Governments response to the Pitt Review included the Flood and Water Management Act 2010. This puts in place many of the changes recommended by Sir Michael Pitt in the aftermath of the 2007 floods, allowing for wider changes to the roles and responsibilities of the relevant bodies.

The Flood and Water Management Act 2010 aims to provide better, more comprehensive management of flood risk for people, homes and businesses.

The Act defines various bodies which are 'risk management authorities' and lists them as the following:
- a lead local flood authority;
- the Environment Agency;
- a district council for an area for which there is no unitary authority;
- an internal drainage board;
- a water company, and
- a highway authority.

All risk management authorities have the following new responsibilities under the provisions of the Act:
- a duty to cooperate with and provide information to other risk management authorities; and
- ability to take on flood and coastal erosion functions from another risk management authority when agreed by both sides.

Risk Management Authorities also have the following specific responsibilities:

Lead local flood authorities
New roles and responsibilities contained within the Act include:
- development, maintenance, application and monitoring of a strategy for local flood risk management in the jurisdiction of the lead local flood authority;
- strategic leadership of local risk management authorities. It is recommended that this is done through the formation of a local flood partnership between lead local flood authorities and other risk management authorities;
- powers to request information from any person in connection with the authority's flood and coastal erosion risk management functions;

- a duty to investigate and publish reports on flooding incidents in its area (where appropriate or necessary) to identify which authorities have relevant flood risk management functions and what they have done or intend to do;
- a duty to maintain a register of structures or features which have a significant effect on flood risk in their area, in the view of the lead local flood authority;
- power to do works to manage flood risk from surface runoff or groundwater;
- power to designate structures and features that affect flooding;
- responsibilities as a Sustainable Urban Drainage (SuDS) Approval Body (SAB) with responsibility for approval, adoption and maintenance of new SuDS developments;
- decision making responsibility for whether third party works on ordinary watercourses by third parties that may affect water flow can take place (internal drainage boards will still have this role on ordinary watercourses in their system);
- a duty to exercise flood or coastal erosion risk management functions in a manner consistent with the national and local strategies; and
- a duty to aim to contribute towards the achievement of sustainable development in the exercise of flood or coastal erosion risk management functions and to have regard to any Ministerial guidance on this topic.

Environment Agency
New roles and responsibilities contained within the Act include:
- strategic overview for all forms of flooding;
- development of a National Strategy for Flood and Coastal Erosion Risk Management (FCERM) to cover all forms of flooding;
- the conversion of Regional Flood Defence Committees into Regional Flood and Coastal Committees with a new remit to include coastal erosion issues;
- powers to request information from any person in connection with the Environment Agency's flood and coastal erosion risk management functions;
- power to designate structures and features that affect flooding or coastal erosion;
- a duty to exercise flood or coastal erosion risk management functions in a manner consistent with the national and local strategies;
- a duty to report to Ministers on flood and coastal erosion risk management including implementation of the strategies; and
- statutory consultees to the SuDS approving body on sustainable drainage.

Continuing roles and responsibilities contained within the Act include:
- responsibility for coastal flooding;
- responsibility for fluvial flooding from main rivers;
- duty to contribute to sustainable development in discharging their FCERM functions;
- ability to issue levies to lead local flood authorities for an area, although levies can now also apply in relation to coastal erosion issues as well as flooding; and
- updated provisions for the regulation of reservoirs.

Water Companies:
New roles and responsibilities contained within the Act:
- duty to have regard to national strategies and to have regard to local strategies;
- duty to be subject to scrutiny from lead local flood authorities' democratic processes; and
- adoption of private sewers.

District and Borough Councils:
New roles and responsibilities:
- power to designate structures and features that affect flooding or coastal erosion;
- duty to act consistently with local and national strategies; and
- duty to be subject to scrutiny from lead local flood authorities' democratic processes.

Continuing roles and responsibilities:
- power to do works on ordinary watercourses and, with the Environment Agency's consent, the sea.

Internal Drainage Boards (IDB's):

- power to designate structures and features that affect flooding or coastal erosion;
- duty to act consistently with local and national strategies;
- duty to be subject to scrutiny from lead local flood authorities' democratic processes;
- ability to work in consortia with other IDBs; and
- statutory consultees to the SuDS approving body on sustainable drainage.

Continuing roles and responsibilities:

- power to do works on ordinary watercourses flooding within their boundary and, with the Environment Agency's consent, the sea.

Section 9 of the Flood and Water Management Act details the requirements for lead local flood authorities in England (see section on Wales for the differences for councils in Wales).

It states that:
Lead local flood authorities must develop, maintain, apply and monitor a strategy for local flood risk management in its area for the following forms of flood risk:

- surface runoff;
- groundwater; and
- ordinary watercourses.

The strategy must specify the following:

- the risk management authorities in the authority's area;
- the flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area;
- the objectives for managing local flood risk (including any objectives included in the authority's flood risk management plan prepared in accordance with the Flood Risk Regulations 2009);
- the measures proposed to achieve those objectives;
- how and when the measures are expected to be implemented;
- the costs and benefits of those measures, and how they are to be paid for;
- the assessment of local flood risk for the purpose of the strategy;
- how and when the strategy is to be reviewed; and
- how the strategy contributes to the achievement of wider environmental objectives.

There must be consultation of both the public and any risk management authority that would be affected. It must also be consistent with the National Flood and Coastal Erosion Risk Management Strategy for England.

The finished strategy must be published and may be accompanied by guidance on how the strategy should be applied in the area.

In October 2010, the first elements of the act were commenced, including the responsibility to produce a Local Flood Risk Management Strategy. In the accompanying letter, the Secretary of State commented that Lead Local Flood Authorities should consider pursuing their work on the Preliminary Flood Risk Assessment as part of the Flood Risk Regulations 2009 as the first step in this process. Data gathered for the Preliminary Flood Risk Assessment will assist in the production of the Local Strategy.

Flood Risk Regulations 2009

The Flood Risk Regulations 2009 came in to force on 10 December 2009. They transpose the EU Floods Directive into UK law.

The key provisions of the Regulations are:

- to give responsibility to the Environment Agency to prepare Directive deliverables - preliminary flood risk assessments, maps and plans - for floods from the sea, main river and reservoirs;
- to give responsibility to lead local flood authorities (unitary and county councils) to do the same for all other forms of flooding (excluding sewer flooding which is not caused by precipitation);

- to require preliminary flood risk assessments (PFRAs) by the Environment Agency and lead local flood authorities to be prepared by 22 December 2011. These should, on the basis of Environment Agency and lead local flood authority PFRAs, identify areas of significant flood risk;
- the requirement of flood hazard and risk maps to be prepared by 22 December 2013 for identified areas of significant flood risk; and
- the requirement of flood risk management plans to be prepared by 22 December 2015 for the same areas.

Lead local flood authorities will need to submit their PFRAs, hazard and risk maps and management plans (where required) to the Environment Agency six months before the specified December deadlines to allow for review, collation, publishing and reporting to the European Commission.

The assessment, mapping and planning cycle continues thereafter on a six-yearly basis with the first review of the preliminary flood risk assessment due by 22 December 2017. Flood maps must be reviewed by 22 December 2019 and flood risk management plans by 22 December 2021. Each review must take into account the likely impact of climate change on the occurrence of floods. These reviews will involve the refreshment of the PFRA in the same six yearly cycle. Since the PFRA will provide much of their evidence base, this will impact on the local strategies too, which will need to be adapted to accommodate any changed assessment of flood risk.

Other related documents relevant to the development of local flood risk management strategies include:

- Catchment Flood Management Plans;
- Shoreline Management Plans;
- Strategic Flood Risk Assessments (which are undertaken by Unitary or District Councils); and
- Surface Water Management Plans (where available).

Planning Policy Statement 25 (PPS25) sets out Government policy on development and flood risk. Its aims are to ensure that flood risk is taken into account at all stages in the planning process, to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest risk. In exceptional circumstance where new development is necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, reducing flood risk overall.

The Climate Change Act (2008) requires a UK-wide climate change risk assessment every five years, accompanied by a national adaptation programme that is also reviewed every five years. The Act has given the Government powers to require public bodies and statutory organisations such as water companies to report on how they are adapting to climate change.

The Conservation of Habitats and Species Regulations (2010) transpose the Habitats Directive into UK law. The regulations aim to help maintain and enhance biodiversity throughout the EU, by conserving natural habitats, flora and fauna. The main way it does this is by establishing a coherent network of protected areas and strict protection measures for particularly rare and threatened species.

The Civil Contingencies Act (2004) is legislation that aims to deliver a single framework for civil protection in the UK and sets out the actions that need to be taken in the event of a flood. The CCA is separated into two substantive parts: local arrangements for civil protection (Part 1) and emergency powers (Part 2).

The Strategic Environmental Assessment (SEA) Directive (2001) (EC Directive 2001/42/EC) is legislation which aims to increase the consideration of environmental issues during decision making related to strategic documents such as plans, programmes or strategies. The SEA identifies the significant environmental effects that are likely to result due to the implementation of a plan, programme or strategy.

The Land Drainage Act (1991) outlines the duties and powers to manage land drainage for a number of bodies including the Environment Agency, Internal Drainage Boards, local authorities, navigation authorities and riparian owners.

The Water Framework Directive (WFD) is the most substantial piece of EC water legislation to date and is designed to improve and integrate the way water bodies are managed throughout Europe. It came into force on 22 December 2000 and was transposed into UK law in 2003. Member States must aim to reach good chemical and ecological status in inland and coastal waters by 2015. It is designed to:

- prevent deterioration in the classification status of aquatic ecosystems, protect them and improve the ecological condition of waters;
- achieve at least good status for all waters. Where this is not possible, good status should be achieved by 2021 or 2027;
- promote sustainable use of water as a natural resource;
- conserve habitats and species that depend directly on water;
- progressively reduce or phase out release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment;
- progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants; and
- contribute to mitigating the effects of floods and droughts.

The Water Framework Directive establishes new and better ways of protecting and improving rivers, lakes, groundwater, transitional (where freshwater and sea water mix) and coastal waters. To address this, the Environment Agency has embarked on river basin management planning with the aim to develop new and better ways of protecting and improving the water environment. It is important that measures to manage local flood risk do not cause deterioration of water bodies and should consider opportunities to improve water bodies in conjunction with local flood risk management.

Making Space for Water (MSfW) (published on 29th July 2004) was the cross-Government programme taking forward the developing strategy for flood and coastal erosion risk management in England. It is no longer current but the work has informed the Government policy direction and the Flood and Water Management Act with regards to managing all risks and providing innovative ways of doing this. The strategy proposed that the Government will, over the 20-year lifetime of the strategy, implement a more holistic approach to managing flood and coastal erosion risks in England. The approach involves taking account of all sources of flooding, embedding flood and coastal risk management across a range of Government policies and reflecting other relevant Government policies in the policies and operations of flood and coastal erosion risk management. The aim is to manage risks by employing an integrated portfolio of approaches which reflect both national and local priorities, so as to reduce the threat to people and their property and deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles.

MSfW highlights the important role of land use planning, rural land management and integrated urban drainage management in managing flood risks. Greater use of rural and land use management solutions to flooding is promoted in MSfW alongside a commitment to continue providing finance for land and property purchase required for managed realignment and research into the effectiveness of land management solutions.

The following documents have been identified as being relevant as they affect water management. Links to these may be sensible and also notes of which ones are amended by the Flood and Water Management Act.

- the Coast Protection Act 1949;
- the Reservoirs Act 1975;
- the Water Industry Act 1991;
- the Water Resources Act 1991;
- the Building Act 1984;
- the Health Act 2009 (so far as relevant to water),
- the Highways Act 1980 (so far as relevant to water),
- the Environment Act 1995 (so far as relevant to water).

What you need to consider for your local strategy....

- Local strategies should recognise and refer to relevant areas of legislation in the context of your area together with the aims and objectives set out in your local strategy;
- The Act requires each risk management authority in your area to be listed to ensure the key players are properly identified. It might be sensible to highlight the responsibilities of each of the risk management authorities as this will aid understanding and clarity over roles and responsibilities;
- You will need to make sure your strategy has considered equality issues and it is suggested that an equality impact assessment is completed; and
- Appendix A contains further information on the key legislative documents relevant to FCERM together with outputs, timescales, and responsibilities to aid the development of your local strategy.

Links to National Strategy

This section outlines the general principles addressed in the consultation on the National Strategy to inform early development of local strategies.

What is the National Strategy?
The Flood and Water Management Act 2010 states that the Environment Agency is to develop a National Strategy for Flood and Coastal Risk Management in England. This strategy, which is to be approved by the Secretary of State and Parliament, will provide a framework for the work of all flood and coastal erosion risk management authorities.

The National Strategy for Wales will be developed by Welsh Assembly Government and will set out the strategic policies for managing flood and coastal erosion risk in Wales. The Environment Agency as a Flood Risk Authority will deliver against that strategy. The Environment Agency will also have a strategic oversight role which will involve monitoring and reporting on implementation of the strategy.

The National Strategy will set out the long-term objectives for managing flood and coastal erosion risks and the measures proposed to achieve them. It should set the context for, and inform the production of, local flood risk management strategies, which will in turn provide the framework to deliver local improvements needed to help communities manage local flood risk. It should also aim to encourage more effective risk management by enabling people, communities, business and the public sector to work together to:

- establish aims and principles for others to be consistent with;
- ensure a clear understanding of the risks of flooding and coastal erosion, nationally and locally, so that investment in risk management can be prioritised more effectively;
- set out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the remaining risk;
- encourage innovative management of risks taking account of the needs of communities and the environment;
- ensure that emergency responses to flood incidents are effective and that communities are able to respond properly to flood warnings; and
- ensure informed decisions are made on land use planning

The Environment Agency has a Strategic Overview role in England, which aims to join up activities across all sources of flooding and coastal erosion. A key part of this is providing local authorities and other partners with data, tools and guidance on flood risk management activities. The distribution of flood risk data supports local authorities and contributes towards the aim of the Environment Agency's Strategic Overview – that all floods are efficiently and effectively assessed and managed. In Wales, the Environment Agency's strategic oversight role likewise will include providing technical advice to other risk management authorities and the distribution of flood risk data.

Consistency between Local Strategies and the National Strategy
The Flood and Water Management Act states that local strategies must be consistent with the National Strategy. **At present the National Strategy is the subject of consultation and therefore the final details are not yet known.** In terms of general principles, however, acting in a manner consistent with the National Strategy is likely to mean:

- complying with any applicable positive requirements contained in the National Strategy – for example if it were to state that a particular FCRM function must be applied in a particular way;
- complying with any applicable direct prohibitions – for instance if the Strategy were to rule out specific flood risk management solutions in certain scenarios, not doing anything which would have the effect of going against the approach of the National Strategy.

The National Strategy consultation fundamentally covers four main topics: who is at risk, what needs to be done, who is responsible for managing risk and who will pay. It sets out a broad view of how flood risk should be managed based on the following guiding principles:

- Community focus and partnership working
  The risk management authorities need to work in partnership with communities to help them understand the risks, and encourage them to have direct involvement in decision-making and risk management actions.
- Sustainability
  Authorities should aim to support communities by managing risks in ways that take account of all impacts and, where possible, enhance the environment and work with natural processes. Government guidance is being developed to set out the link between sustainable development and risk management to support the implementation of this strategy.
- Risk-based approach
  It is not technically, economically or environmentally feasible to prevent flooding and coastal erosion altogether. A risk-based management approach based on a consideration of probability and consequence, targets resources to those areas where they are most effective in reducing the threat of flooding and its consequences.
- Proportionality
  All aspects of risk management should be carried out in a way that reflects the size and complexity of the risk and society's ability to manage it.
- Multiple benefits
  As well as reducing the risks to people and property, FCERM can bring significant economic, environmental and social benefits.
- Beneficiaries should be allowed and encouraged to invest in local risk management strategies. The benefits achieved when flood and coastal erosion risks are managed can be both localised and private, through the protection of specific individuals, communities and businesses.

Acting in a manner consistent with this, local strategies should ensure these principles are followed in determining the detail and objectives to manage the identified local flood risks – see Figure 2.

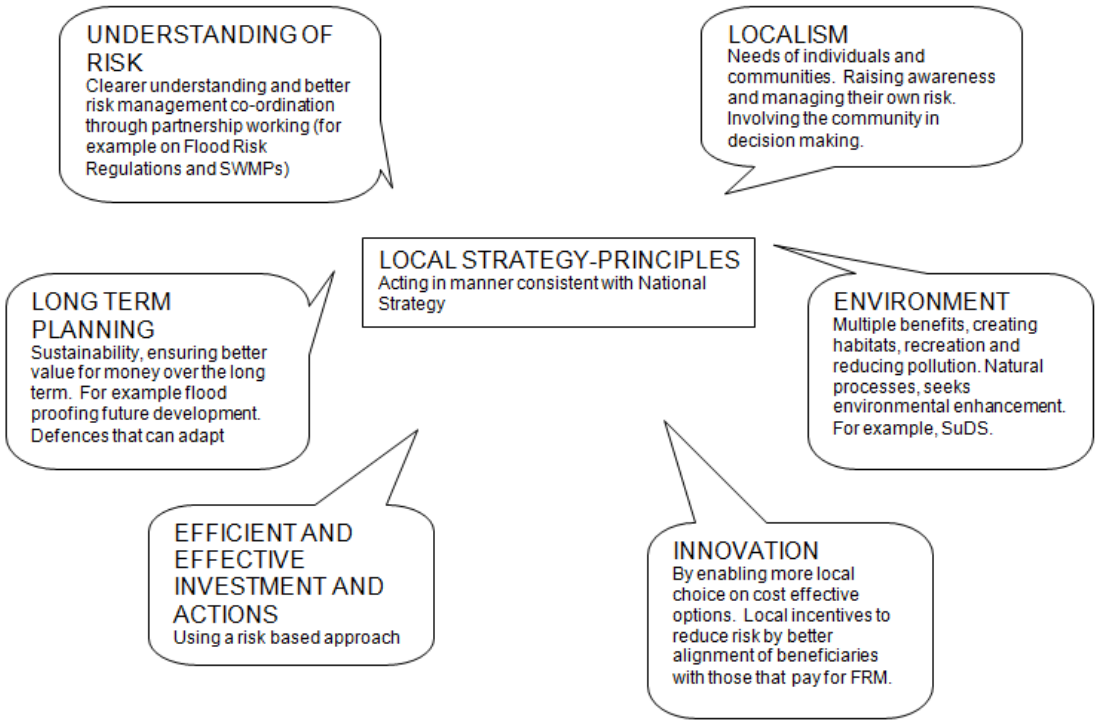


Figure 2 Flood and coastal erosion risk management strategies and implementation plans

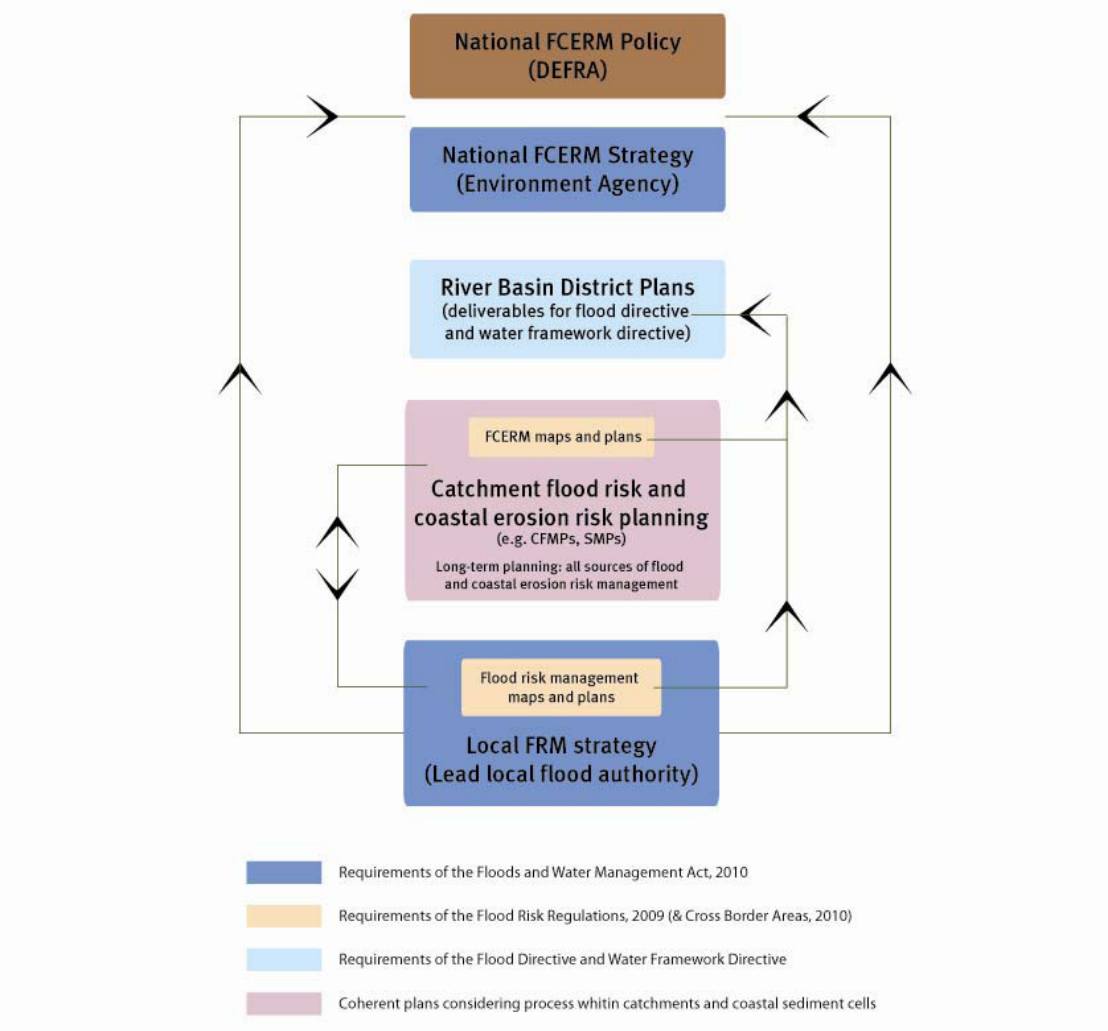


Figure 3 How plans and strategies contribute to management of flood risk

Figure 3 is taken from the National Strategy consultation. It shows how the consultation is set out and how plans and local strategies contribute to the understanding and management of flood risk. To manage flood and coastal erosion risk effectively, a number of different organisations may have to carry out a wide range of tasks. These tasks require careful planning and assessment so that the right options are selected and to make sure that they are sustainable and implemented in the right way. As a result, it is essential that action is planned effectively, for the long-term, providing a clear picture of what will be done to manage risk and provide multiple benefits, for example, in supporting biodiversity, habitat creation and/or improving water quality.

What you need to consider for your local strategy....

The National Strategy will set out guiding principles for flood and coastal erosion risk management. You will need to consider how the principles apply in your authority, including ensuring the policies you set for managing risk are consistent with these principles.

- **Current and future flood risk** – You will need to understand and be able to describe the flood risk in your area. This will include all sources of flooding, historic flooding, existing defences and future changes. You should already have a baseline assessment from your PFRA, SFRA and SWMP (where they exist);
- **Managing flood risk** – Using the principles in the National Strategy to guide you, consider what your main objectives and measures are to manage flood risk. You should use your assessment of current and future flood risk to determine the approach taken in the local flood risk management strategy. A range of appropriate measures to manage the probability and consequence of flooding (e.g. development control, emergency planning) can be used over different timescales;
- **Working together to protect people and property** – The National Strategy sets out the need for community involvement in decision making. How will you involve your communities and work in collaboration with other risk management authorities? As the Act allows flexibility and options for joint arrangements, this could include any local circumstances where responsibilities are shared or an alternative authority is carrying out the work on your behalf (for example an IDB);
- **Reporting on and reviewing the strategy** - the Environment Agency has a role in reporting on the implementation of the National Strategy. It is expected that lead local flood authorities will provide information on development and implementation of local strategies to inform reporting to Government. What mechanisms will you put in place for review and reporting?

Local flood risk management strategies: England

The following subsections have been extracted from the Flood and Water Management Act 2010 with the intention of providing guidance on how to interpret and apply the Act. Local authorities will need to ensure the local strategy is proportional to the risks identified – where the risks are low the strategy should be simple and concise.

(a) the risk management authorities in the authority's area,
Managing local flood risk is the responsibility of the lead local flood authority. The local strategy must set out who the risk management authorities are in the area and what their relevant functions are. A lead local flood authority must consult affected risk management authorities about its strategy.

For the purposes of this guidance and the avoidance of any doubt, the risk management authorities are:

The **Environment Agency** is an executive, non-departmental public body responsible to the Secretary of State for Environment, food and rural affairs. Its principal aims are to protect and improve the environment, and to promote sustainable development.

Lead local flood authority in relation to an area in England means:
- the unitary authority for the area; or
- if there is no unitary authority, the county council for the area.

Unitary authority means:
- the council of a county for which there are no district councils;
- the council of a district in an area for which there is no county council;
- the council of a London borough;
- the Common Council of the City of London;
- the Council of the Isles of Scilly.

Internal drainage board (IDBs) has the same meaning as in section 1 of the Land Drainage Act 1991. Drainage boards were set up in areas of special drainage need to sustain both agricultural and developed land use. The principal function of drainage boards is to manage water levels in their areas to minimise flood risk and supply water (irrigation) to people, property and land. Boards have a duty to “exercise a general supervision over matters relating to the drainage of land” in their areas.

IDB membership includes elected members representing the occupiers of the land in the district and members nominated by local authorities to represent other interests which naturally invites and supports the localism agenda.

Local authorities may wish to consider widening the role of IDB’s in their area where a business case can be made for this showing the costs and benefits to local communities. Local communities who do not receive central government funding because of the limited financial impact of flooding in their area may consider proposing a new IDB.

Water Company means a company which holds:
- an appointment under Chapter 1 of Part 2 of the Water Industry Act 1991, or
- a licence under Chapter 1A of Part 2 of that Act.

Water and Sewerage Companies are required to have regard to local strategies.

Highway Authority has the meaning given by section 1 of the Highways Act 1980. Broadly, the Minister is the highway authority for motorways and trunk roads. Outside of Greater London, the county council or Unitary Authority (or metropolitan district) is the highway authority for all highways in the county. London boroughs (or the Common Council) are the highway authority for all highways in the boroughs in the City, and Transport for London is the highway authority for all Greater London Authority roads. It is therefore commonly the case that the lead local flood authority also has the highway authority responsibility.

English risk management authorities are required to act in a manner consistent with the national flood and coastal erosion risk management strategy. These risk management authorities must also, with the exception of water companies, act consistently with relevant local flood risk management strategies.

Other risk management authorities
Whilst the above risk management authorities are specifically referred to in the Flood and Water Management Act, it is essential to recognise the key contribution of other internal and external authorities and stakeholders that have a key responsibility for flood risk management in their own areas of discipline.

Therefore, when the lead local flood authority considers engaging risk management partners in the development of the local strategy, they may consider the following:

'Internal' local authority risk management authorities and partners might include:

Civil Contingencies Unit	Strategic/Forward Planning
Property Services	Bridges and Structures
Highways Planning Liaison (Highways Development Control)	Countryside and Coast Team
Development Engineering (Infrastructure, Supervision and Audit, Road Records and Licensing)	County Farms
Engineering Programme Management (including Local Transport Plan, Safety Engineering, Programming and Implementation)	Public Rights of Way
Parks, Amenity and Street Care	Car parks
Planning Authorities	Coastal Groups
Information Services	Public Relations

'External' risk management authorities and partners might include:

Highways Agency	National Park Authorities and Royal Parks
Government Office	Network Rail
Emergency services	Parish and Town Councils
Housing Associations	Local Resilience Forum
British Waterways	Natural England
English Heritage	Met Office
Local partnerships, forums and community groups	Association of British Insurers
Royal Society for the Protection of Birds	Association of Drainage Authorities
National Flood Forum	Country Land and Business Association
National Farmers Union	Professional Institutions
Land owners and land/estate managers	Universities

Developers have a vital role to play in delivering the outcomes of risk management strategy. Planning authorities should take necessary regard of not just the statutory planning framework, but also the local strategy for flood risk management. The local flood risk management strategy should be considered as supplementary planning guidance (SPG) and therefore form material consideration in the planning process. In so doing, future developments will take proper regard of the local flood risk management strategy including the risk of flooding from surface water, groundwater and ordinary watercourses. Information on the risks of flooding from Main Rivers and Sea may be found in the Strategic Flood Risk Assessment.

Regional Flood and Coastal Committees are being established to take forward much of the work previously carried out by Regional Flood Defence Committees (RFDCs), with an extended remit to include coastal erosion. They will play an important local role in guiding the Environment Agency's flood and coastal activities, approving programmes of work for their areas and continuing to raise local levies under existing arrangements to fund local priorities. It is intended that they will also have a wider role in assisting the review of local authority risk assessments, maps and plans required by the Flood Risk Regulations.

What you need to consider for your local strategy....

- The lead local flood authority must ensure the risk management authorities for an area are identified and listed within the local strategy;
- Make sure they know they are a risk management authority!
- Consult with them, co-operate and ensure they are share aware of local strategy priorities and objectives.

(b)the flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area

The local flood risk management strategy must set out who the risk management authorities are in the area and their relevant functions. This is intended to clarify where the flood and coastal risk management roles and responsibilities sit within an area. Mindful of the differing local authority administrative boundaries, it is not possible within this framework to be prescriptive on how this might be achieved, and each lead local flood authority will need to take its own view on this dependent on local circumstances. It is imperative as part of the governance and successful delivery of services that all risk management authorities are aware of and take responsibility for the functions they exercise.

The National Strategy consultation sets out three levels for roles and responsibilities for flood risk management. These are:

- policy and the strategic overview of flood and coastal erosion risk management;
- planning risk management; and
- implementing risk management measures.

Risk management functions

The lead responsibilities for planning flood and coastal erosion risk management functions are as follows:

- Environment Agency;
    - flooding from main rivers, the sea and reservoirs including coastal erosion risk management;
- lead local flood authorities or Unitaries;
    - flooding from surface runoff, groundwater and ordinary watercourses.
- District councils or Unitaries;
    - coastal erosion risks (together with the Environment Agency);
    - planning flood risk management activities in partnership with lead local flood authorities;
    - making decisions on development as a local planning authority;
- Utility and infrastructure providers
    - planning the future development and maintenance of services;
    - taking account of FCERM plans in their own planning process
    - ensuring their assets and systems are resilient to flood and coastal risks; and
    - ensuring the required level of service can be maintained in the event of a flood incident.

Implementing risk management measures

The lead responsibilities for implementing risk management measures are as follows:

- Environment Agency
  - risk-based management of flood risk from main rivers and the sea;
  - regulation of the safety of reservoirs with a storage capacity greater than 25,000m^3 (once the relevant parts of the Act have been commenced, reservoirs with a capacity of 10,000 m^3). It should be noted that carrying out work to manage reservoir safety lies with the reservoir owner/operator.
- lead local flood authorities and district councils
  - reducing the risk of flooding from surface runoff, groundwater and ordinary watercourses (may arrange for this work to be carried out on their behalf by other organisations, for example district council, IDBs, etc;
  - duty under the Act to investigate flood incidents to help understand how they happened, their impacts, and actions that may be taken to reduce future risk.
- District councils and unitary authorities
  - land use planning and working with communities to ensure that development is appropriate for the area (supported by the Environment Agency and other organisations such as infrastructure and utility providers);
  - works on sea flooding and coastal erosion;
  - powers to protect land against coastal erosion
  - control third party activities on the coast (including the construction of private defences or the removal of beach material);
  - emergency planning and especially in flood recovery (supported by the Environment Agency and the Met Office by providing warnings of flooding from rivers and the sea in England).
- Water and sewerage companies
  - managing the risks of flooding from water supply, surface and foul or combined sewer systems;
  - working with developers and landowners to reduce the input of rainfall into sewers through the use of storage, source control and SuDS.
- Highways authorities
  - providing and managing highway drainage and roadside ditches under the Highways Act 1980.
- Riparian owners and Landowners
  - common law duty to maintain ditches to prevent them causing a nuisance to road users.

Local authorities are well placed and experienced at managing multi-service and multi-agency functions. However, it should be recognised that factors that achieve successful outcomes are dispersed between the risk management authorities. As a consequence, it is essential that proper links are made with the Environment Agency, lead local flood authorities and district councils, and other partners to ensure a well co-ordinated approach to flood risk management activities.

What you need to consider for your local strategy....

- Lead local flood authorities will need to consider the functions required in legislation and seek to translate them into aims, objectives and outcomes in the local strategy;
- The legal functions and more general capabilities of Flood Risk Management Authorities in your area should be thought through prior to the specific roles within the Strategy being decided;
- It is worth remembering that, with the exception of delivering the local strategy, lead local flood authority functions can be transferred to other agencies with mutual agreement.

(c) the objectives for managing local flood risk (including any objectives included in the authority's flood risk management plan prepared in accordance with the Flood Risk Regulations 2009),

The local strategy must set objectives for managing local flood risk. An objective is defined as an outcome or target to be achieved. In the context of a local strategy, there are likely to be a set of high level strategic objectives as well as a series of more detailed objectives. Objectives for local strategies should be consistent with the strategic objectives and guiding principles set out in the National Strategy.

Managing flood risk requires a proactive, pragmatic approach to understanding between all partners, and communication with the public. Partnership working and engagement of local communities will be essential for developing and pursuing objectives that are commonly understood and accepted (See sections on Local Partnerships and Building Trust with Communities). One or more of the strategy's objectives may therefore be about communicating with the public to set realistic expectations and outcomes with regard to managing local flood risk.

One approach to setting high level objectives could be by considering social, economic and environmental indicators within the lead local flood authority. For example, 'reducing risk to life' would be a social objective, and 'reducing economic damage to properties' an economic objective. Environmental objectives could relate to supporting implementation of the Water Framework Directive (for example through improving the naturalness of channels/water bodies), or particular environmental features within the lead local flood authority's area.

More detailed objectives may differentiate between short, medium and long term aims. For example short term objectives may be about getting the working framework right, such as the improvement of co-operation between partner agencies and the agreement of how the strategy and also the broader elements of the Flood and Water Management Act are to be delivered locally. This could be done via the setting up of local flood groups. Medium and longer term objectives might then focus more on the physical outcomes that are being pursued, for instance through specifying more detail on targets for reducing risks to life or economic damage.

The Preliminary Flood Risk Assessment under the Flood Risk Regulations will help provide a baseline understanding of local flood risk within a lead local flood authority. This assessment may help determine more detailed objectives, and will also be important when deciding upon measures and options (see section below). It will be important to review objectives as understanding of risk increases to ensure they are still appropriate.

What you need to consider for your local strategy....

- How can the strategic aims and objectives set out in the National Strategy be translated into a set of specific, meaningful objectives for your local strategy?
- How will you use the information in your Preliminary Flood Risk Assessment to help set objectives – e.g. what different levels of risk need to be managed and where?
- How will you engage the community and other partners in setting objectives, and how will you manage their expectations.
- How do the objectives in your local strategy fit with the corporate priorities within your lead local flood authority?

(d) the measures proposed to achieve those objectives,

Each lead local flood authority will need to choose measures based upon its locally determined strategy objectives. Measures are defined as activities which will be undertaken to manage risk and achieve the agreed objectives.

A wide range of measures should be considered for the short, medium and longer term. These should include structural and non-structural activities. Measures which will achieve multiple benefits, such as water quality, biodiversity and amenity benefits, are encouraged and should be promoted where possible.

Measures can be considered under a number of high level themes including:

- studies, assessments and plans;
- development planning and adaptation;
- flood awareness, response and recovery;
- land management; and
- asset management and maintenance.

It is important to assess and understand risk in order to be able to manage it appropriately. An example of a measure under the studies, assessments and plans theme would be develop a greater understanding of local flood risk. This could be pursued in a particular area where such additional information was identified as being desirable through the baseline provided in the PFRA. It could be achieved through producing a SWMP or other study (assuming the area in question is not a Flood Risk Area under the Regulations, for which additional maps and plans would be prepared anyway). This would then inform technical options (e.g. structural measures) for managing the risk.

It will be important to make use of existing policies, plans and strategies in identifying measures. Strategic studies such as Catchment Flood Management Plans and Shoreline Management Plans should be used to help determine measures as they set the strategic context for overall flood and coastal erosion risk management at catchment and coastal cell levels. Completed SWMP Action Plans will contain an agreed list of actions for specific locations, which can also be incorporated into local strategies.

If a Flood Risk Area has been identified under the Flood Risk Regulations, the measures identified in the Flood Risk Management Plan must be included in the local strategy.

Structural measures to manage local flood risk could include activities such as changing land management practices to reduce surface runoff and diffuse pollution, attenuating rainfall at source through the use of SUDS, designing drainage systems for exceedance, considering the management of rainfall on highways, kerb realignment to manage overland flow paths and maintenance activities on drains and gulleys.

Non-structural measures could include activities such as emergency planning, awareness campaigns, spatial planning policies to reduce flood risk on new developments and determining overarching approaches for regulating ordinary watercourses (for example through a policy on consents for culverting).

An important aspect of identifying measures will be community engagement to outline the scope of the plans to affected communities and also to manage public expectations regarding their potential on future flooding.

Defra's Surface Water Management Plan technical guidance (Chapter 8) contains some useful information on identifying measures and options for managing risk, and could also be used to help determine measures for a local strategy.

What you need to consider for your local strategy....

- How can identified flood risks best be managed among the various flood risk management authorities in the area based upon their responsibilities and capabilities?
- What are the other established priorities for the area and how do they support or conflict with flood risk management priorities?
- What is affordable and realistic and what is not?
- Cross-boundary working – how will you work with neighbouring authorities within the catchment/coastal cell?
- Which of the different types of measures, and what specific measures, will best apply to the different objectives specified in the strategy.

Case Study

Case study examples demonstrating measures that have been implemented through Early Actions, Surface Water Management Plans or other initiatives are requested for the next version of this guidance. If you would like to share an example of measures you have implemented in your local authority, please contact the LG Group.

(e) how and when the measures are expected to be implemented,

There is no 'one size fits all' solution to how the measures contained in the Act are to be implemented. Each local authority will have to consider their own priorities, aims and objectives in their own respective areas; and in the context of this framework. It is essential to work with the other risk management authorities to realise the benefits of collaborative working and to ensure a shared vision on the outcomes.

The local strategy should outline how the lead local flood authority will implement its numerous roles within the Flood and Water Management Act. Appendix A sets out the key actions and timescales for implementation of key functions and measures contained in the Act and Flood Risk Regulations.

The key mechanism for managing and directing how and when the measures are to be delivered is suggested to be through Partnership working – for more information on this, see section titled, Local Partnership and Governance.

What you need to consider for your local strategy....

- Roles and responsibilities under relevant legislation;
- What have you put in place to undertake these responsibilities;
- How you will ensure close working co-operation with partner agencies – e.g. for sharing information, who does what (investigations, use of I.T. etc);
- Cross border flooding arrangements; and
- Integration of other plans, for example Catchment Flood Management Plans.

(f) the costs and benefits of those measures, and how they are to be paid for,

Cost/benefit analysis is ultimately dependant on the strategic priorities and the means of funding, which is why the Strategy should address these issues together where possible. It is important to establish who is paying and who is benefiting from proposed schemes, since the answers to these questions will largely determine the cost/benefit analysis process.

The Local Flood Risk Management Strategy is intended to secure the best flood risk management solutions and projects for the lead local flood authority area as a whole. As a result, the prioritisation process may differ to some extent from that followed in preparing Surface Water Management Plans, which are often carried out at a city or town scale level. Nonetheless, the basic principles of cost/benefit analysis as covered by Chapter 9 of the Surface Water Management Plan Guidance document can be applied.

When considering schemes to deliver the local strategy, lead local flood authorities should be mindful of ongoing work to deliver the national strategy, and also of works carried out by other agencies in the area, particularly flood risk management authorities. There may be opportunities to deliver schemes jointly with partners both within the lead local flood authority area, and with neighbouring LLFAs. These should be explored, particularly given that at the Regional Flood and Coastal Committee level neighbouring LLFAs will agree regional priorities with one another and with the Environment Agency.

While it is vital that authorities consider local priorities and funding conditions when carrying out cost/benefit analysis, a general agenda has been set by central government which should be followed closely. This can be understood in more detail with reference to the following documents:

- Defra's "Appraisal of flood and coastal erosion risk management" policy statement
- the Environment Agency's "Flood and Coastal Erosion Risk Management Appraisal Guidance"

The first document emphasises the following principles when considering the benefits of a scheme:

- Consideration given to ‘risk management’ and ‘adaptation’, as opposed to only ‘protection’ and ‘defence’;
- Consistent and transparent planning with value for money in mind, in a way that complies with the Treasury guidance on appraisal and evaluation in Central Government (The Green Book);
- Helping to achieve better social and environmental outcomes as part of sustainable development, both by considering a broader range of issues and by using a broader range of analysis techniques; and
- Adopting a risk-based approach, whilst considering impacts within the whole of a catchment or shoreline process area.

In its consultation on proposals to reform Flood Defence Grant in Aid (FDGiA), which ran from December 2010 to February 2011, Defra proposed a new approach to cost/benefit analysis which emphasises the importance of making accurate assessments of future savings arising from flood risk management schemes. The philosophy is to change from one of “meeting costs” to one of “paying for outcomes”. To quote the document:

“All projects would have to demonstrate that long term benefits are greater than their costs to make sure they are worthwhile doing at all.”

As a general rule, the Government would aim to invest one fifth of the value of annual damages avoided towards proposed projects, thus delivering (or helping deliver) a return for the taxpayer of five times the investment. A higher rate is proposed for deprived areas and a lower rate for economic benefits enjoyed by the private sector. Such an approach demonstrates the importance of considering who is investing and who is benefiting.

Under the proposals in the consultation, desired outcomes of FDGiA investment will remain the same, with a particular emphasis on protection for housing and for the Environment.

FDGiA will be one of the key means of funding schemes proposed in the local strategy. The distribution of this fund will be determined through discussions between the RFCC and the Environment Agency. Under current proposals, it is likely that some local schemes will receive partial but not whole funding. In such eventualities, the grant could potentially be topped up by local sources.

Local authorities and communities already have a number of options available to them to help pay for local schemes that do not meet national priorities but nevertheless deliver significant benefits to local communities. Such local funding mechanisms could range from the use of existing local authority prudential borrowing and wellbeing powers, the business improvement district (BID) model or even increases in council tax precepts, where these are affordable and in the best interest of local communities.

Other, new and alternative, funding sources are potentially available from a range of organisations and beneficiaries. These include:

- Section 106 agreements (s106), local tariffs, supplementary planning documents and any future community infrastructure levy (CIL), subject to its introduction;
- Local business rates including ’business rate supplements‘ and council taxes including specific precepts and ’special expenses‘, plus fees and charges, where appropriate and affordable;
- Local activities that can achieve flooding and coastal erosion benefits as a secondary outcome to their primary purpose of securing community benefit and facilitating economic growth and sustainability.

These activities would include those associated with the local environment, land management, highways management, community infrastructure management, recreation, tourism, wealth creation and regeneration plans.

Prioritising schemes in terms of some of the cost/benefit principles set out in Government guidance documents will increase the chances of being funded, but remember that there are local sources of funding available too and that a Local Flood Risk Management Strategy must reflect local priorities at least as much as those set out in national guidance.

What you need to consider for your local strategy....

- Be aware of schemes in your area proposed or considered by other agencies and how they impact upon your plans;
- Be sure to identify and isolate "quick wins" – small scale schemes that will be easy to carry out and do not require a cost/benefit analysis;
- For all other schemes you would like to pursue, consider them in light of:
    - SWMP Guidance;
    - Defra's "Appraisal of Flood and Coastal Erosion Risk Management";
    - The EA's "Flood and Coastal Erosion Risk Management Appraisal Guidance";
    - The relevant sections of HMT's Green Book;
    - The new prioritisation set out in the Government's proposal for Flood Defence Grant in Aid.

(g) the assessment of local flood risk for the purpose of the strategy,

The PFRA is an initial assessment of flood risk required under the Flood Risk Regulations which transpose the EC Floods Directive into UK law. The PFRA will be completed by each LLFA unless an exception order is granted. Areas identified as being at significant risk (as defined by Defra) will undergo further analysis, mapping and a full flood risk assessment. The PFRA should be used to inform the strategic document, identifying the areas potentially at risk of flooding and the assessment of that risk should be used to decide if a surface water management plan or flood risk assessment is required.

A surface water management plan or flood risk assessment is site specific and will usually focus on a small area or catchment to assess the risk within that area and identify possible mitigation or resilience measures that are required to reduce the risk or consequence of flood events. This should also feed into local flood plans or resilience groups to enable the suitable planning of emergency procedures.

How PFRA should be used as a starting point, baseline assessment of risk?
The PFRA should be used to collect and collate information on historic floods, localised flooding incidents and also areas of potential (future) flood risk. Information on historic floods is likely to be held by any flood authority such as County, Unitary, District or parish councils, the water companies and the Environment Agency. Once the relevant section of the Flood and Water Management Act is enabled, the LLFA will be required to investigate and record flooding incidents within their area including information on who has a flood risk responsibility for each incident.

The PFRA should be used to measure flood risk. The Environment Agency has developed a series of modeled surface water flood maps, available from its on-line datashare (see next section), that can be used for this purpose. Flood risk authorities may also have modeling information for particular areas or studies and these should be identified and collated as part of this process.

Climate Change
When looking at flood risk management, it is essential to consider the potential impacts of climate change because, given the nature of flood mitigation works, any solutions put into place should be designed for the longer term and be resilient to a changing climate.

To help lead local flood authorities, the EA has commissioned work to consider the impacts of climate change on sources of local flood risk for each River Basin District across England and Wales.

The aim of this work is to provide text that can be used in Preliminary Flood Risk Assessments to comply with section 12 (6)(h) of the Flood Risk Regulations 2009. The information will provide a summary of the latest science and implications for climate change applicable to local flood risk. The

information provided will also have direct relevance to the development of Local Flood Risk Management Strategies. The project will provide a starting point for further risk assessment and option planning for LLFAs. The work is expected to be complete by end of March 2011. Guidance documents are already in existence that can aid the assessment of climate change and these include the Environment Agency's Flood and Coastal Erosion Risk Management Appraisal Guidance (FCERM-AG), Planning Policy Statement 25 – (PPS25) and others which are listed within FCERM-AG.

Specific information on climate change factors to use for flood risk assessments are also available. This provides a simple starting point for flood risk assessment and climate change and is used both in FCERM-AG and PPS25. Although published in 2006, the values are consistent with Government's latest climate change projections, UKCP09.

What is significant risk, intervention levels, levels of service?
Significant risk has a specific meaning under the Flood Risk Regulations which is to be used when determining flood risk areas for the Preliminary Flood Risk Assessment. Defra has set the thresholds for this current cycle around the consequences of harm to people. Therefore the indicative flood risk areas are where there is the highest concentration of people at risk of surface water flooding. However, at a local level lead local flood authorities will need to come up with their own definition of what is "significant". Intervention levels and the level of service, or flood risk protection can then be determined.

What you need to consider for your local strategy....

- Identify available datasets and agree which information is the most suitable considering items such as age of data or suitability for geographical area (i.e. valleys or flat areas). The Environment Agency provide guidance on this for their information and this forms part of each dataset received through the EA geostore;
- Agree on a consistent method for data analysis and assessment i.e. property counts. The South West Flood Risk Managers Group (representing 16 lead local authorities across the South West has agreed a common measure for data analysis to ensure the ability for comparison);
- Identify how risk is to be assessed and what level of risk is considered to be of local significance – refer to PFRA guidance. This will determine high risk areas which could be considered for individual surface water management plans.
- Assess climate change impact and agree a consistent % increase for drainage / flood mitigation works.

(h) how and when the strategy is to be reviewed

A natural, long term framework for refreshing the Strategy is provided by the Flood Risk Regulations / EU Floods Directive. The PFRA will need to be carried out once every six years and local authorities should be prepared for the potential need to considerably review the strategy as a result. In lead local flood authority areas where national Flood Risk Areas have been submitted to the European Commission, the timetable for producing flood hazard and flood risk maps and flood risk management plans will also provide a structured timetable by which to reconsider the strategy.

However, the strategy should be considered a living document at all times. In all likelihood, when an authority has completed its PFRA – with or without submission of national Flood Risk Areas to Europe – it will identify a number of areas as being at "significant" risk of flooding by local criteria, and for many of these areas SWMPs will be developed. These plans will inform the strategy, and as they are developed the strategy will need updating. Moreover, further down the line when schemes are implemented, these too will reflect upon the strategy, and as far as possible it should be updated to reflect this.

If flooding events occur, then the strategy might need to be reviewed. It may change the prioritisation of work and a reappraisal of the risks the local area faces.

At the time of writing, the only new burden upon lead local flood authorities arising from the Act to have been enabled is that of developing the Local Flood Risk Management Strategy. However, authorities might bear in mind that as further responsibilities become incumbent upon them, their own activities may require updates to the strategy. For instance, the approval of large SuDS drainage schemes, or the refined understanding of surface water drainage patterns as a result of the register of structures might prompt the lead local flood authority to reconsider elements of its Strategy. It is down to the authority to decide how regularly the Strategy should be updated in this light.

What you need to consider for your local strategy....

- Develop a general framework for updating the strategy based upon major milestones, such as those provided by the Flood Risk Regulations;
- Consider other factors that might make it necessary to update the strategy such as those outlined above, and as far as possible write these into your timetable for updating the strategy;
- In light of these, decide how up-to-date you want your strategy to be; and
- Consider how you might easily and regularly update the strategy, for instance by posting it on easily amended web pages.

(i) how the strategy contributes to the achievement of wider environmental objectives.

A strategic environmental assessment (SEA) is undertaken to ensure that the consequences on the environment are considered during the development of a plan or strategy alongside technical, economic or other considerations. The environmental report sets out the findings of the Strategic Environmental Assessment.

Biodiversity can significantly benefit from risk management measures by protecting designated sites and contributing to improving them or maintaining them in favourable condition. The strategy encourages the provision of biodiversity enhancements and minimising adverse effects. However, there can also be significant conflicts with the maintenance and improvement of biodiversity, particularly in coastal areas. The prioritisation of solutions that work with natural processes and achieving Water Framework Directive (WFD) objectives will help to mitigate these effects. Regional habitat creation programmes provide a cost effective means of offsetting the overall impacts of FCERM on biodiversity where it is not possible to fully mitigate the effects locally.

Defra has determined that the National Flood and Coastal Erosion Risk Management Strategy requires a statutory SEA. Given the scope and content of the Local Strategy, an environmental report would also be required to be prepared by each lead local flood authority.

The preparation of Local Flood Risk Management Strategies is a legal requirement and will be subject to the SEA Directive under Article 2(a). CLG has published a practical guide to the SEA Directive which contains information how the Environmental Assessment should be undertaken.

What you need to consider for your local strategy....

- Given that the SEA Directive requires an “environmental assessment” of certain plans and programmes, it will be necessary for your authority to consider the preparation of an environmental report alongside the FCERM local strategy document; and
- Consider the extent and implications of sustainable development.

Local partnerships and governance

Effective joint working between risk management authorities is fundamental to delivering the obligations on all partner agencies under the Flood Risk Regulations 2009 and the Flood and Water Management Act 2010.

A number of partnerships already exist in anticipation of the legislation coming into force. Some of these are outlined below to present a range of possible options that have been put into practice around the country. While there are many features common to all, there are also significant differences, reflecting the unique circumstances of each area.

The case studies are intended to provide initial ideas as the basis for bespoke local solutions. In some cases it may be possible to replicate a model in another area with minor modifications to suit local requirements. Other areas may need a wholly new approach. We hope that the range of models provided covers a sufficient variety of types of area and authority to be useful in either circumstance.

Partnership creation and development
Local Authorities have a great deal of experience of developing and managing partnerships, ranging from area-based Local Strategic Partnerships through to service-focused groupings such as Local Children's Partnerships and Community Safety Partnerships.

There is extensive literature in this area, and much of the experience of Local Authorities over recent years is distilled on the Local Government Improvement and Development (formerly the IDeA) website.

The basic steps in putting a partnership together tend to be fairly generic. Taking a range of case studies and experiences, the main principles can be summarised as follows.

Purpose
It is essential to the success of a partnership that all parties involved should be clear about what they are trying to achieve from the start, individually and collectively. In the case of flood risk management the overall agenda is set by the Pitt Review recommendations, and the subsequent legislation implementing them.

An assessment of the implications of the legislation for all risk management authorities will help develop an understanding of the outcomes that are required, the necessary resources to achieve them, and the specific contributions and roles of each of the partner authorities. Guidance on specific aspects of the legislation will be forthcoming from Defra and the Environment Agency as sections of the Act are commenced.

Stakeholders and 'buy-in'
In many respects the structure and operational practices of the partnership, including governance and decision-making arrangements, will follow from defining its purpose. This includes identifying which organisations need to be involved. The Act provides a starting point in defining Risk Management Authorities, but engagement with other stakeholders, not least with local communities and politicians, will be a key factor in establishing support for developing and implementing the partnership.

The mix of these 'core' partners varies across the country. Internal Drainage Boards only occur in low-lying areas which are defined as areas of special drainage needs, such as the Fens, East Yorkshire or the Somerset Levels, while areas with dense populations will tend to have Unitary rather than two or three-tier local government.

Beyond these organisations there are a range of potential stakeholders who could be brought into the development of the partnership. British Waterways is not named in the Act as a Risk Management Authority, but maintains a network of canals across the country, which in some areas is extensive. There are also opportunities for engaging with parish councils and with community groups, for example by working with them on a specific project such as collecting data on flooding incidents for the Preliminary Flood Risk Assessment. At the same time there are opportunities for developing joint

working with regionally based bodies, particularly Natural England, and with existing strategic groups such as the Coastal Groups.

A key principle running throughout the Pitt Review was the need for better communication with the public. This was a fundamental reason for recommending the establishment of a single body (the lead local flood authority) with responsibility for co-ordination and leadership at a local level, and for a single body with oversight nationally (the Environment Agency). However, the consistent message emerging from the Pitt Review and from Government since 2007 is that better co-ordination and leadership by the public sector must be accompanied by greater public resilience and participation in identifying and managing flood risk for themselves.

Lead local flood authorities will need to work with and communicate with the public in respect of their own particular role, but their capacity to do this will be strengthened if such engagement is aligned or integrated with a wider partnership approach. Every risk management authority has a range of existing channels for engaging and communicating with its communities, but the opportunity presented by closer partnership working is to develop a joint strategy for communicating and engaging, as well as making links between communications channels so that advice to the public is consistent, and does not involve several different points of contact.

In addition, the support of politicians and senior managers in all risk management authorities cannot be underestimated, particularly given current budgetary pressures. The involvement and support of elected members will also be essential in allowing risk management authorities to implement Local Flood Risk Management Strategies, and hence to take a proactive, preventative stance rather than a purely reactive approach to problems as they arise. Local priorities may include managing flood risk, particularly if an area has recently experienced flooding, but other localities may not consider it a significant factor. This will present challenges in securing the necessary support to develop new partnership arrangements, and it is important that any proposed approach is developed in a way that is seen to be proportionate to the risk in the local area.

In this regard, establishing a clear and shared narrative around flood risk may be as important as it is in working with local communities.

Managing and governing partnerships

Most of the existing flood risk management partnerships seen to date have been developed by building on previously established arrangements, often at local level, to deliver practical solutions to incidents of flooding where individual authorities do not have the capacity or the resources to provide solutions alone.

Further details of these arrangements can be found in the case studies presented below, but in general terms a common arrangement is for local delivery groups to focus on co-ordinating partners' efforts on the ground, with a more strategic group managing area-wide initiatives such as the PFRA or SWMP, where appropriate.

There are variations on this theme, with a more 'regional' approach taken in the Yorkshire and Humber region along RFDC boundaries, or with a third grouping as in Lincolnshire, chaired by the Environment Agency to manage the linkages between national and local strategies, and to facilitate two-way dialogue between the local lead authority and the national overview authority.

In all these cases there are clear terms of reference for roles and responsibilities of each of the groupings within the partnership. If possible, it is helpful to ensure that these include the accountabilities for each group, including the links from the partnership into the decision-making and accountability framework for each participating organisation. This can take the form of ensuring that each organisation's formal scheme of delegation includes its involvement in a particular partnership, or a statement in the partnership Terms of Reference defining the role of an organisation's representative on a particular group, and the extent of the representative's authority on behalf of their organisation.

Provision of secretariat and resources to ensure that a partnership functions effectively is a matter for local discretion. Most local authorities have a great deal of experience in running multi-agency partnerships such as LSPs on limited resources and within existing capacity. Flood risk management

is a rather different area, requiring the involvement of engineering and risk management professionals to ensure effective delivery of joint projects or services.

However, the essential skills required for partnership management are more generic, provided that the partnership manager or support officers have, or are provided with, sufficient understanding of the roles and functions of the risk management authorities in question. This will include a sufficient grasp of the relevant legislation and the strategic and policy context to support the partnership in setting and achieving the right objectives and outcomes

These objectives and outcomes are the glue that hold the partnership together, providing the main rationale for the partner organisations to work together, and the agreed plans shaping their commitment to deliver services together, and therefore differently from the way they would work as individual authorities working alone. The Flood Risk Management Strategy will clearly be the key document for any flood risk management partnership, as it will define the aims, objectives and outcomes for all contributing partners within the locality. It will also act as a key point of reference for all stakeholders as a jointly agreed strategy, completed in consultation with the public.

Communications
The need to engage and communicate with partners and the community has been referenced on several occasions above. This is particularly important given the new requirement to publish the PFRA and subsequent risk management plans, placing a premium on the ability to provide consistent, accurate information on behalf of all parties to the local partnership.

A single, shared narrative underpinning a partnership communications strategy can assist in this, and many areas have found considerable benefits in establishing a web portal where partners and the public can access a shared set of information, although sensitive data will require more secure handling.

Review and performance management
Regular review is important to ensure not only that agreed objectives and outcomes are being met, but that the partnership itself remains fit for purpose to deliver them, and to continue revising and setting new objectives into the future. Many authorities will have established means of undertaking such reviews, ranging from a partnership 'health check' to a thorough on-going review of all aspects of the partnership and its operations.

In terms of performance management, the National Flood and Coastal Erosion Risk Management Strategy and the Local Flood Risk Management Strategy will set the core outcomes and targets for partners to achieve, and the local Strategy will also need to act as a focal point for integrating the outcomes agreed in Shoreline Management Plans, Catchment Flood Management Plans and Surface Water Management Plans (where these exist) into a coherent whole.

Case Studies
Case studies of partnerships from around the country were published by the IDeA in 2009 in advance of the then Flood and Water Management Bill being presented to Parliament.

Many Authorities have their own well-established procedures for setting up and developing partnerships. Examples include the following:

Flooding Case Studies

Department for Education and Skills Guidance

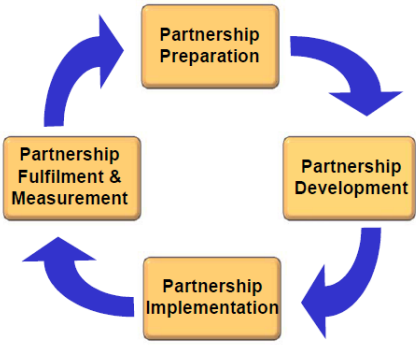
Working across administrative boundaries
The new legislation presents lead local flood authorities with real challenges to work across administrative boundaries. While upper tier boundaries have been selected for the management of surface water and for implementing local leadership and co-ordination, main rivers, the coast and land drainage is managed on the basis of river catchments and sub-catchments, and coastal cells.

This means that most lead local flood authorities will be working with partner authorities whose boundaries extend beyond their own, or cut across their own. It is therefore all the more important that local strategies align with those of neighbouring authorities, while continuing to focus on local priorities and circumstances.

In practical terms lead local flood authorities will need to consider how to accommodate elements such as the asset register and the requirement to share information with partners such as Water Companies and the Environment Agency, whose boundaries may cover numerous and/or partial lead local flood authority areas. One way forward might be a common data-sharing protocol between a Water Company and several LLFAs, while the asset register could be developed as a signposting system to link to existing databases.

There are a number of examples of mechanisms for cross-boundary co-operation, including the Humber and Yorkshire Learning Alliance and the East Area LLFA Network. The draft National Strategy makes references to the potential for RFCCs to assist in making links between LLFAs, although this would entail a rather different way of working, given that not all Lead Local Flood Authorities will necessarily be represented on RFCCs under present proposals. There will also remain a need for LLFAs to develop means of liaising across Environment Agency regions, where the local area is split between more than one RFCC.

Summary
The key stages in developing and managing partnership arrangements can be summarised on the basis of a partnership lifecycle approach.



Lifecycle	Summary
Preparation	Developing a clear picture of what partnerships your organisation needs, what they will deliver and who you will work with
Development	The process of findng and engaging with potential partners, sharing ideas and reaching a joint agreement
Implementation	Building on the agreeement reached and putting in place the structures and process to make the partnership work, building towards the launch
Fulfilment & Measurement	Delivering the promise. Working together to achive the benefits agreed in the Development phase and taking opportunities to achieve more

Figure 4 (Taken from Lincolnshire County Council Partnering Framework: a step-by-step guide to developing collaborative partnerships (Bridge, 2006), Introduction, p. 10).

What you need to consider for your local strategy....

Alongside this, the experience of a range of LLFAs in establishing their partnership arrangements highlight a number of key considerations:

- Is the need for and purpose of the partnership clear?
- Are the right stakeholders and partners identified (including 'internal' LLFA partners and elected member representatives on RFCCs)?
- Is there agreement on the form and function of the partnership?
- Is there political and senior managerial backing for the partnership?
- Does the partnership command the resources required to deliver its remit?
- Is there an agreed shared narrative that can support a joint communications strategy?
- Are governance arrangements sufficiently robust to provide democratic accountability and transparency?
- Does the partnership have mechanisms for communicating effectively with the public, and for receiving and acting on information from the public?
- Does the partnership make best use of existing arrangements and resources that are already known to be delivering effectively?
- Does the partnership facilitate effective linkages between operational activity and strategic and policy decisions?
- Does the partnership have an agreed mechanism for prioritising use of resources, whether through pooled funding, or in co-ordinating use of individual partners' resources (in most cases this will be provided by the Local Flood Risk Management Strategy)?

The role of Scrutiny and Overview Committees

The Flood and Water Management Act 2010 extend the remit of Local Authority Scrutiny to cover flood risk management, in line with the new duties placed upon Lead Local Flood Authorities.

Guidance on developing PFRAs is published by the Environment Agency.

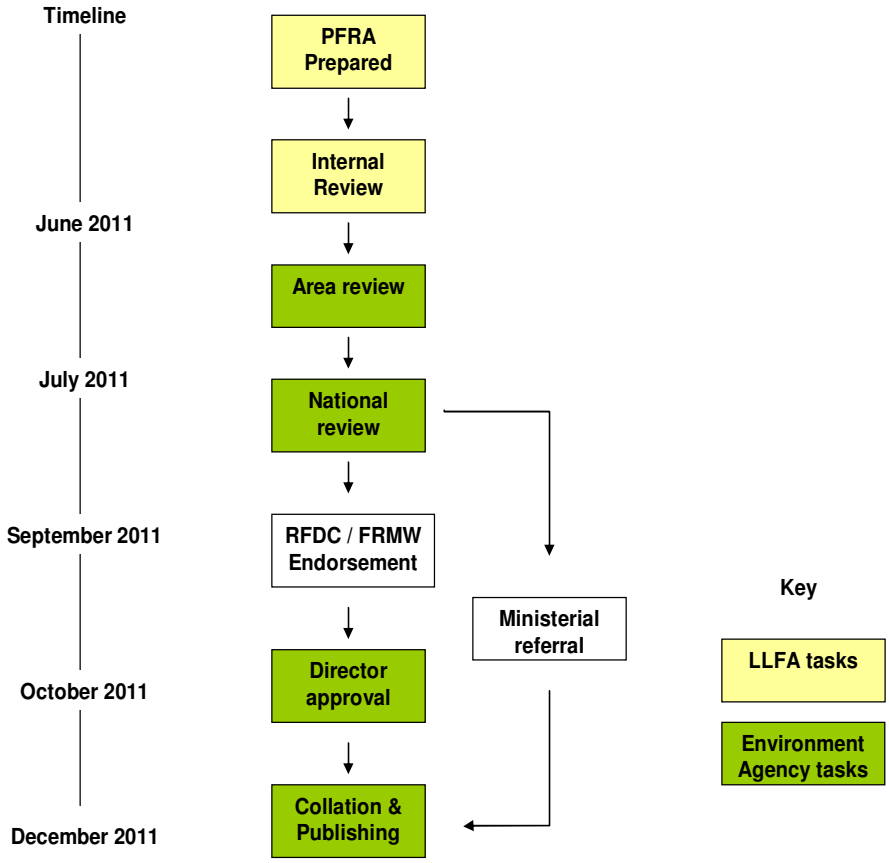


Figure 5 Flood Risk Regulations 2009 – PFRA approval

The guidance recommends that Overview and Scrutiny Committees should be encouraged to carry out a review of the PFRA to ensure it meets the required quality and consistency standards prior to submission to the Environment Agency by the 22nd June 2011.

Flood and Water Management Act 2010
The Flood and Water Management Act requires lead local flood authorities to ensure that adequate scrutiny arrangements are put in place (Schedule 2, s.54). The arrangements required under section 21(2) include arrangements to review and scrutinise the exercise by risk management authorities of flood risk management functions or coastal erosion risk management functions which may affect the local authority's area. A risk management authority must comply with a request made by an overview and scrutiny committee for information and/or a response to a report.

A risk management authority must have regard to reports and recommendations of an overview and scrutiny committee in the course of arrangements under subsection (2).

In effect, the intention of the Act is that Local Authority scrutiny should be extended to cover the full range of flood risk management activities carried out within the local authority area, and it provides

scrutiny committees with powers to require information or a response to a question, with the further provision that risk management authorities must have regard to the reports and recommendations of the Committee.

Current support available
In addition, the LGID has published a scrutiny of flooding toolkit. This will help Overview and Scrutiny Committees set objectives and lines of enquiry.

Further information will also be available soon on the Local Government Improvement and Development (formerly IDeA) website.

Case Studies of Scrutiny and Overview in action
There are a number of examples of scrutiny exercises that have been undertaken in recent years which may also provide helpful guidance to LLFAs considering this aspect of flood risk management.

A good example is the scrutiny exercise of Hampshire County Council, undertaken by the Council's Environment and Transportation Select Committee in November 2009. The full scrutiny report is available online at the Centre for Public Scrutiny (CfPS).

Although a 'one-off' light-touch review, the final report's recommendations include provision for ongoing scrutiny of specific areas by the Council's Policy and Resources Select Committee. The report also details the way in which evidence was presented to the Select Committee, and background documentation that informed the Review.

In the wake of the 2007 floods Worcestershire County and District Councils established a Joint Scrutiny Task Group, whose final report includes a range of recommendations for all agencies responsible for flood risk management.

Similarly, Gloucestershire County Council conducted an extensive scrutiny exercise, resulting in a series of recommendations in the final scrutiny report. This, together with a schedule of witnesses providing evidence and a range of related information can be found on the website relating a particular instance of flooding at Longlevens, which the Scrutiny Committee took as a case study.

Lincolnshire County Council has recently established a formal scrutiny arrangement for flood risk management, extending its existing Environment Scrutiny Committee to become a Flood Risk and Drainage Management Scrutiny Committee on regular occasions. The extension involves the co-option of a scrutiny member from each of the seven districts in the county, with the participation of invitees from Internal Drainage Boards, the Environment Agency and Water Companies.

What you need to consider for your local strategy....

Although experiences will vary greatly across the country, there are a number of fundamental considerations which lead local flood authorities may wish to take into account when developing their new scrutiny functions:

- What existing expertise exists among elected members in the locality?
- Have there been previous scrutiny exercises on a task and finish select committee approach that could provide a local model?
- Can an existing committee undertake the role, or is an entirely new grouping required?
- does the area wish to focus on specific priorities, or to take a broad overview of the whole range of water management activities?
- In two-tier areas the opportunity exists to establish joint committees of County and District Councillors, but localities may also wish to consider inviting non-voting representation from other risk management authorities, such as the EA, IDBs and Water Companies, that fall within the remit of the Committee's scrutiny powers; and
- How can the scrutiny process be developed as a two-way dialogue between committee members and risk management authorities, such that the expertise and knowledge of Members is enhanced and deepened?
- Members should be provided with background briefing material prior to scrutiny meetings;
- Member support can be developed through proactive briefing and workshops, especially in developing an understanding of the roles of different risk management authorities; and
- The rationale for, and scope of the Local Flood Risk Management Strategy needs to be explained clearly, particularly its local relevance in relation to other existing priorities.

Communications strategy

Effective communication is fundamental to promoting better community relations and awareness of flood risk management issues.

Communities offer a wide range of perspectives and experiences related to flooding that are invaluable in helping create the vision and response for flood risk management. By encouraging their participation, local authorities can achieve a more complete picture of flood risk and better understand and promote solutions. In return, it is incumbent on all to understand the effects and limitations of flood risk management actions and to act responsibly to help reduce risks to themselves and others.

Ensuring that people are well informed about flood risk management services is crucial to building trust and a strong reputation for local authorities. Communication contributes to service users' satisfaction and their view of an authority's overall performance.

Local Government Improvement and Development (formerly the IDeA) have provided a resource to help local authorities to improve their communication with communities, staff and other stakeholders. It covers all the key topics on communications and contains advice on best practice and case studies.

Why is communicating flood risk management to a community level so important?
There are some communities that are acutely aware of the importance of flood risk management and have taken action within their own local areas. These communities are typically those that have experienced at first hand the effects of flooding. Engaging with the minority that self-advocate flood risk actions is relatively straight-forward. Engaging beyond this 'small' group to the wider community can be difficult and sometimes daunting.

There will always be the handful of enthusiastic people in any community who are keen to tackle the threat of flooding. However, it is the task of lead local flood authorities to encourage all the others to do something! To make real progress in reducing the risk of flooding, communities will need to be involved and collective action will need to be seen as both desirable and normal.

Lead local flood authorities, District Councils and Parish Councils are vitally important in setting the local leadership. In reality, communities are more likely to respond to local leadership who share their concerns and interests. The advantage of community leaders is that they have direct access to people, understand local issues and sensitivities and can sustain activity over time. This will inevitably prove a critical success factor for both communications and behaviour change.

Case study

The importance of marketing and communications should not be underestimated by local authorities. Somerset County Council, as an example, has taken the view that a strategy for marketing and communications is one of the core aims of the Strategic Flood Management Partnership. The Partnership consists of senior representatives of each of the risk management authorities in Somerset – see Figure 6. It is worth noting that the Strategic Partnership also has a seat for the Chair of the Somerset Water Management Partnership which is made up of special interest groups, landowners, and other technical and non-technical representatives. This group is used as a consultative forum and provides an invaluable 'test' for local strategy and mechanism to engage with communities in Somerset.

Figure 6 Somerset County Council – Strategic Flood Management Partnership participants

It should be recognised that a consistent message needs to be conveyed when engaging with communities. Likewise, in setting levels of service and service standards, there is a need for all risk management authorities to 'buy-in' to the overall aims of the Partnership or the lead local flood authority.

The array of marketing and communications tools available to lead local authorities is diverse and it will be a decision for each authority to make on how best to engage with the audience and communities depending on the message and resources available to deliver the message.

Case Study
In a series of Flood Fair events organised by the Somerset Local Authorities Civil Contingencies Partnership, communities were targeted where there was a known flood risk. Community representatives received demonstrations of the latest flood defence technologies, how to prepare a flood plan and how to be better informed and equipped to deal with the threat and consequences of flooding. These events served to inform residents and businesses of the potential effects of flooding so that they can take appropriate action, such as protecting important documents and other high-value assets.

Community Engagement is conducted in Somerset on a multi-agency level and the activity has taken a top down approach in that elected members have been briefed on Flood Events and Community Resilience. Speakers have been brought in at an appropriate level from the Cabinet Office supported by Senior Police and Fire Service Officers. Senior Council Officers from County and District have attended a Flood Risk Seminar.

Since 2006 there has been a proactive campaign supporting or supported by the Environment Agency (Wessex Area Office at Bridgwater), again this has taken a top down process starting with Community Leaders from Parish Councils and Communities. These have been followed by targeted events for particular communities at risk of flooding in Somerset, particularly rapid rise catchment areas.

What you need to consider for your local strategy....

The overarching aims and objectives with respect to marketing and communications could be:

- To make sure appropriate key messages and information are developed and deliver them to the right people at the right time and in the right way;
- To ensure communities have enough information to effectively increase their own resilience;
- There needs to be a balance between addressing issues of past floods and managing future risks, thus adapting to climate change. The local strategy could weigh this up locally and sell it by providing evidence to the public/elected members and get their buy-in;
- To optimise existing communication activities being delivered by partners and to explore opportunities for joint working, thereby securing efficiencies and savings; and
- To make sure that all audiences have a clear understanding of the key messages, how to access the right information, and how communities can take the necessary precautions before, during and after flood events.

Building trust with communities (information, engagement and consultation)

The Government's localism agenda demonstrates that it is committed to giving communities a real say in local decision making. The National Flood and Coastal Risk Management Strategy recognises that flood risk management authorities will have to work with communities in managing flood risk by focusing "…*on the needs of individuals, communities and businesses, including them in decision making and in the management of risk*". In this context, communities are generally understood as being geographically-based: home-owners and businesses within a particular area.

Working with communities in managing flood risk will help:

- understand the needs of individuals, communities and businesses;
- make better informed plans, decisions and policies;
- communities understand what flood risk means for them, including what they should do in a flood;
- communities recover more quickly after a flood;
- meet goals (including timescales);
- increase local support;
- increase trust in government; and
- improve reputation of lead local flood authorities (and other partners).

The key to success will be the attitude local authorities have and the approach taken in engaging communities. Traditionally, most public organisations made decisions, let people know what they planned to do and then had to defend their decisions to those who didn't like them.

The Building Trust with Communities approach is different. The building trust approach was launched in 2002 to encourage Environment Agency staff to engage more effectively with local people and organisations. The aim is to help move away from one-way communication (based on an "information deficit" model, which suggests that if only people knew what you do, they would think the same way too) to two-way dialogue that recognises that local people's views are important and that they have a role in decision making. Whilst this approach was specifically derived for use by the Environment Agency, there are many aspects that are equally applicable to lead local flood authorities.

To encourage more dialogue, a package of support, which includes the building trust step-by-step guide, training courses, learning networks, case studies and 'how to' guides has been developed. More details can be obtained by contacting the Environment Agency's national Stakeholder and Community Relations Team through your EA Area Office.

The building trust approach recognises that a broader range of approaches is required, especially those which enable others to engage-deliberate-decide (EDD). This involves working with communities early on to understand their concerns, interests and priorities. The leading organisation may still make the final decision, but they will have worked with others in developing the solution. At the very least, communities will understand your role and why decisions have been made.

Rather than jumping straight to an engagement method, the building trust approach asks three key questions to help you decide how to engage with the community in a way that meets your needs, but also meets the needs of the community:

- what you want to do?
- why you want to work with the community and why do they want to work with you?
- who do you need to work with?

Case Study
The building trust approach has been used on a range of flood risk issues including, building a new flood defence scheme, deciding to undertake managed realignment or making changes in the way a watercourse is maintained.

Creating community ownership for local brook
Foxholes Spinney and Lubbesthorpe Brook have long been blighted with rubbish dumping. Running along the back of a number of houses, grass cuttings and old fence panels blocked the brook, contributing to local flooding and consequently giving rise to complaints from those affected.

The area needed to be cleared and maintained but also had the potential to be a nature area, benefiting wildlife and the local community. By working with the community in understanding and resolving the issue, a sense of local ownership was created for the brook.

The local Environment Agency team worked in partnership with local authorities, the local Wildlife Trust and the community to improve this area. A partnership group was set up and through letters, newsletters and evening surgeries the community were asked for their concerns about the area and views on how it could be improved. The views of the community and the partnership group were used to write a regeneration plan for the brook that everyone felt they'd contributed to.

Giving communities a voice in managing flood risk

Approximately 70 properties in the Dunhills area of Leeds have been flooded three times in the last five years (2004, 2005 and 2007). Because of the frequency of flood events, the issue has become a high profile problem for Leeds City Council and local MPs. The area has been visited by the Secretary of State for the Environment, the Chief Executive of the Environment Agency and HRH The Duke of Gloucester. The relationship between local residents and the Environment Agency project team was unproductive and as a result, attempts to develop a flood risk strategy for the estate had failed. Residents were frustrated at the lack of progress, and the Environment Agency staff felt hampered by a lack of support and cooperation from residents.

In 2009 work started to create a closer working relationship with Dunhills estate residents. The Environment Agency involved residents in their discussions about the options to reduce flood risk in the area. The local communications team helped the project team use the *Building Trust with Communities* approach to plan this engagement work.

Two flood risk management actions have been agreed (heavy maintenance of Wyke Beck in the Dunhills estate and creation of upstream water storage pools). They have the full support of residents that took part in the engagement process, the local MP and ward councillors. The feedback questionnaire conveys a strong sense of ownership of the decisions and an optimism that things are now moving in the right direction.

Why engage communities?
Many examples of engage-deliberate-decide engagement now exist in the EA where local knowledge has helped the Environment Agency understand the flood risk problem, identify potential options to resolve the issues and develop a solution that is locally acceptable.
The building trust approach has also been used in the Thatcham and Leeds SWMPs.

What you need to consider for your local strategy....

The Environment Agency has a package of support, which includes the building trust step-by-step guide, training courses, learning networks, case studies and the following 'how to' guides to help staff engage effectively:

- deciding how much engagement is required;
- designing and running a drop-in surgery;
- guidelines for staff - working with people face to face;
- running collaborative meetings;
- giving bad news;
- stakeholder analysis guide;
- using exhibitions for consultation;
- creating exhibition boards;
- explaining your engagement process;
- how to work with a liaison group; and
- using questionnaires.

Contact the Environment Agency's national Stakeholder and Community Relations Team via your Environment Agency Area Office for further details and information.

Civil contingencies and community resilience

Defra is the lead government department for flood emergencies in England. Defra Ministers have overall responsibility for national level flood emergency planning and for ensuring co-ordinated policy and other support, as necessary, to local emergency responders. For more on this, please refer to the National Flood Emergency Framework.

The Civil Contingencies Act 2004 is one of the most relevant pieces of legislation to emergency planning for flooding. It formalises a number of duties on local authorities, the emergency services and other organisations involved (including the Environment Agency) in responding to any emergency. Amongst these are contingency planning and risk assessment for emergencies at the local level, including flooding.

The Act lists local authorities, the Environment Agency, and emergency services as 'Category 1' responders to emergencies. It places duties on these organisations to:

- undertake risk assessments;
- manage business continuity;
- carry out emergency planning;
- share information and cooperate with other responders; and
- warn and advise the public during times of emergency.

Incident management is vital to reducing the consequences of flooding to people. Prompt action to minimise the consequences is the most effective way of limiting the longer term impact the well-being of individuals and the economic resilience of communities.

The Environment Agency has a key role in relation to flooding. It has a responsibility under the Civil Contingencies Act to provide flood warnings to those at risk from flooding from rivers and the sea and permissive powers to maintain and improve flood defences.

Local resilience forums (LRFs) – of which the Environment Agency is a member in all regions – are responsible for developing multi-agency flood plans (MAFPs). These plans allow all responding parties to work together on an agreed coordinated response to flooding.

LRFs bring together Category 1 and 2 responders within a local police area for the purpose of cooperation in fulfilling their duties under the Civil Contingencies Act. There are also a number of LRF sub-groups that will cover specific subjects such as severe weather and flooding.

While the LRF and associated sub-groups focus on planning for incidents, there are other levels of control that may convene to manage the response during a flood. They are:

- Bronze Operational level, at which the management of 'hands-on' work is undertaken at the incident site or impacted areas;
- Silver Tactical level of management is introduced to provide overall management of the response; and
- Gold Strategic decision makers and groups at local level. They establish the framework within which operational and tactical managers work in responding to and recovering from emergencies.

This has been further strengthened by the government's commitment to developing a National Flood Emergency Framework (NFEF), which was published by Defra in 2010. The NFEF is a forward-looking policy framework for flood emergency planning and response prompted by Sir Michael Pitt in

his report on the summer 2007 floods. It brings together information, guidance and policies and is a resource for those involved in flood emergency planning at local and national levels.

There are a large number of organisations involved in flooding emergencies. These include the Category 1 and 2 responders identified in the Civil Contingencies Act and are likely to expand during the event, depending on the size, duration, and recovery phases. The following lists the key roles and responsibilities for local authorities during and after a flooding emergency.

- Coordinate emergency support within their own functions;
- Deal with surface water and groundwater flooding, flooding from 'non main rivers';
- Work with the other Category 1 and 2 responders as part of the multi-agency response to floods;
- Coordinate emergency support from the voluntary sector;
- Liaise with central and regional government departments;
- Liaise with essential service providers;
- Open rest centres;
- Manage the local transport and traffic networks;
- Mobilise trained emergency social workers;
- Provide emergency assistance;
- Deal with environmental health issues, such as contamination and pollution;
- Coordinate the recovery process;
- Manage public health issues;
- Provide advice and management of public health;
- Provide support and advice to individuals; and
- Assist with business continuity.

Further information can be found from the Local Government Improvement and Development web resource.

Local authorities will continue to lead post-flood recovery within communities. This will draw on and align with Government National Recovery Guidance and advice.

Case study
The Somerset Civil Contingencies Partnership represents all six partners (Borough, County and Districts) fulfilling a statutory duty, which rests equally on County and District Councils under the Civil Contingencies Act 2004. This representation at the LRF ranges from a Corporate Director on the LRF Executive Group, through the Civil Contingencies Unit Manager on the LRF Management Group down to individual officers from the Unit on the various Sub, Working and Task Finishing Groups.

Somerset Local Authorities CCU is the operational unit of the Somerset Local Authorities' Civil Contingencies Partnership tasked to co-ordinate and deliver the duties laid on local authorities' by the Civil Contingencies Act 2004. Its responsibilities in flood response are as follows:

- produce and maintain the Somerset Multi Agency Flood Plan;
- receive and respond to severe weather warnings and flood warnings from the Met Office and Environment Agency;
- when required ensure that the Somerset Multi Agency Flood Plan is activated;
- mobilise the Somerset local authorities' response and co-ordinate the response of the voluntary agency support to flood incidents in Somerset, including recovery;
- promote community resilience within Somerset local communities affected by flooding;
- provide business continuity advice to local businesses that could be at risk from flooding; and
- co-ordinate the provision of mutual aid to other local authorities outside of Somerset affected by flooding.

The CCU lead planning officer for flooding is a member of the Flood Group and there is representation on the Exercise and Training and Warning and Informing Groups, which have work that overlaps the flood area. An officer also sits on the risk assessment group and through the development and review of the Community Risk Register, which sets the work plan for all LRF activity.

An initiative to promote Community Resilience has been the purchase and provision of five small community resilience stores which have or will be sited at historic flood sites. This project has been taken forward with the Civil Contingencies Partnership with support from other Agencies including the EA, Police and Fire Service.

Additionally, there is a requirement as part of the Somerset County Plan 2010 to 2013 as one of the twelve Place Promises Improving help to people at risk of flooding. The requirement is to engage with 15 communities in a year, currently the Unit meets at least double that although not all community engagement is solely about flooding.

What you need to consider for your local strategy....

- Local strategies should recognise the function of civil contingencies and ensure the rescue and recovery activities are managed in line with the local understanding of risk; and
- The activities of the LRF should not be exclusive of the development of local strategy.

The role of the Planning Authority

The Flood and Water Management Act makes considerable changes to the role of upper tier local authorities in planning and development control. In brief, the legislation makes lead local flood authorities the SuDS Approving Body (SAB), with the role of approving, adopting and maintaining SuDS connecting more than one property. The SAB is also responsible for providing approval before connection to the public sewerage system can be made. SuDS consent must be provided before construction can begin. This is a parallel process to planning permission, rather like Building Regulations Approval. In its SAB role, the lead local flood authority in some circumstances effectively becomes a statutory consultee on planning applications with implications for drainage, ground permeability and flood risk from all sources, for example hardening a driveway or building a patio.

In addition, the lead local flood authority has a regulatory role in respect of issuing and enforcing formal Land Drainage Consents for activities on ordinary watercourses outside IDB areas and also for consenting third party activities on "designated structures"; therefore a parallel process to issuing planning permissions is also required here. Once planning has been granted, the precedent has been set and it would be difficult to object to a LDA consent, even on grounds that the work could increase the flood risk. Therefore it is important that the planning application and consent application are not looked at in isolation.

Particularly in two-tier areas, where County Councils are not Local Planning Authorities, this will result in a significant change to their involvement in the planning system. It is important that the appropriate linkages are made to maximise opportunities for sustainable development and adaptation to climate change in inland and coastal areas; ensuring that the planning process continues to operate to best effect for sustaining local communities, and for planning authorities, infrastructure providers and developers.

The LGIU and IDeA (now the LGID) prepared an overview guide for Local Authorities in November 2009, *Flood Risk Management: an introduction and checklist for Local Authorities*

This provides a useful summary overview of some of the key elements of the planning system in relation to flood risk management, including:

- embedding Strategic Flood Risk Assessments into the Local Development Framework (LDF);
- avoiding inappropriate development in the functional flood plain;
- working with planners in using PPS25 to locate new development and regeneration according to the flood vulnerability of the intended use;
- directing development first to risk areas through embedding the PPS25 sequential approach into the LDF;
- safeguarding land for critical infrastructure and agricultural use;
- developing action plans, where necessary, to support sustainable spatial planning;
- ensuring all plans are integrated and firmly linked to strategic policies in local plans;
- promoting the use of open space for multiple use/benefits including biodiversity, public amenity and making space for flood water;
- assessing and recording the flood risks to existing infrastructure, buildings and services using SFRA;
- identifying and mapping communities, infrastructure, buildings and services at greatest risks using SFRA;
- retrofitting existing buildings, implementing sustainable urban drainage systems, canalising watercourses, building or improving flood defences;
- promoting sustainable water management; and
- consulting CABE's Sustainable Cities website on planning, management and designing a sustainable place.
- Securing funding through development for flood defence schemes.

Since the publication of this guidance the development of PFRAs has begun, and these will be as important as SFRAs in informing spatial planning and development control approaches to flood risk management. See also LGID's website for a range of information on flood risk management and spatial planning.

It will be apparent from this that there are a large number of individual policy and planning documents and processes that need to be aligned.

- Planning Policy Statement 25 (PPS25);
- Strategic Flood Risk Assessments;
- Preliminary Flood Risk Assessments;
- Local Flood Risk Management Strategies;
- Strategic policy in Local Development Frameworks;
- Sustainable Drainage Systems;
- Climate Change mitigation and adaptation;
- Resilience and emergency preparedness;
- Planning permission;
- Building regulations approval;
- SuDS approval and LLFA/Environment Agency comments on planning applications;
- Economic, Regeneration and Social Strategies;
- Flood Warning, Capital Investment & Maintenance Strategies;
- Infrastructure Plans;
- Catchment Flood Management Plans;
- Shoreline Management Plans;
- Surface Water Management Plans;
- Water Cycle Studies and Strategies; and
- Integrated Urban Drainage Studies

Establishing Operational Links

In Unitary areas the lead local flood authority is already also the Local Planning Authority, although ensuring seamless operation between the two functions will still require some attention. In two-tier areas County Councils already work with Local Planning Authorities regularly on highways, minerals and waste matters, and will need to build on this as they develop their capacity to undertake flood risk management works, to provide enforcement and consenting services on non-IDB ordinary watercourses, and in the SuDS approval process. This engagement will need to be extended so that counties and districts work together to align the strategic policies in the planning authorities' local plans with the LLFA's flood risk management plans.

Availability of resources will be a key issue here and increased volumes of planning applications and related work will need to be carefully assessed. However, this workload may be eased by adopting a more risk based and proportionate approach, incorporating increased focus on getting strategic policy right which should reduce effort on detailed site by site planning consultations and considerations.

Much of this less strategic activity and detail may be accommodated by developing and adopting the principle of "Standing Advice" to developers and other interested parties, along with exploring other techniques and management practices such as outsourcing, adopting industry best practice and "self regulation".

Options to facilitate closer working between the LLFA and strategic planning, development management and regulation/enforcement departments include:

- including planners in existing or newly-established flood risk management partnerships;
- through delegating a proportion of the LLFAs workload to district colleagues;
- by moving to a more permanent sharing of resource in some form of joint planning authority function; and
- multi-disciplinary working teams.

Strategic Linkages – SFRAs, LDFs and Core Strategies
Currently there is a requirement on Local Planning Authorities to prepare Level 1 and 2 Strategic Flood Risk Assessments (SFRAs) to inform the development of their Core Strategies and LDFs; and to generally guide land use planning decisions. Many Councils have now completed their PPS 25 Level 1 and 2 SFRAs, or are in the process of updating the old PPG 25 SFRAs; but these are based predominantly on data about coastal and fluvial flooding. This is simply because until recently there has been very little reliable data on which to assess surface water flooding. Generally those SFRAs that have taken surface water flooding into account have relied heavily on Water Company DG5 flooding data.

The recent release of the EA's Flood Maps for Surface Water (second generation surface water maps), and the development of Preliminary Flood Risk Assessments should help to rectify this. Whilst PFRAs will need to take account of existing SFRAs; the converse also applies and existing SFRAs will need to be updated to take account of surface water related flood risk assessment in PFRAs. In future the two sets of assessment should become much more closely aligned.

In the immediate term, strategic policies in LDFs will need to take account of PFRAs as well as updated SFRAs, and will need to be linked into the Local Flood Risk Management Strategy. The data gathered for the SFRA, PFRA and SWMP (if you have one) can be used to identify areas at risk of flooding to prioritise measures in the Local Strategy. It should be noted, however, that PFRAs use thresholds of significance for flood risk that are very high in the context of surface water, and many Lead Local Flood Authorities will wish to undertake a more detailed assessment of local surface water flood risk than is required in the PFRA guidance.

Using these identified priorities may then lead to policies about land use which will need to be fed into the LDF. This is a statutory planning document which planners can then use to object to inappropriate development in the floodplain. The period of development and consultation on the Local Flood Risk Management Strategy appears to offer a suitable opportunity to ensure that the relevant strategic linkages and cross-checking between CFMPs, SMPs, the Local FRM Strategy and the LDF (particularly the Core Strategy), are put in hand.

There may well be opportunities here to link public consultation on LDFs and Core Strategies with the development of the Local FRM Strategy, and to ensure that planning and development management policies, and flood risk management policies, are reviewed and revised jointly in the future at the same time as consideration is given to other key sustainable development factors.

In terms of long term planning and development strategy, LLFAs and LPAs should ensure that flood risk management relating to all sources becomes an integral aspect of forward thinking, so that strategic policies in Local Plans align with Flood Risk Management Plans such that land use (and infrastructure) planning, development control and flood risk management become mutually reinforcing elements within a single, overarching approach to spatial planning and development at local and strategic levels.

Sustainable Drainage
It is likely that the provisions of the Flood and Water Management Act 2010 relating to sustainable drainage systems will be commenced from April 2012, although this remains to be confirmed. It is possible that it may take place later, in October 2012. From this point the LLFA will be required to approve, adopt and maintain Sustainable Drainage Systems linking more than one property, provided that they are designed and built in accordance with National SUDS standards. They will also be required to approve connection to the public sewer system. Publication of National SuDS standards is currently awaited, together with a sustainable scheme for funding their maintenance.

SuDS approval will effectively be a parallel process with planning permission, like Building Regulations approval and issuing land drainage consents. A developer will not be able to commence construction until SuDS approval has been obtained. There will clearly be a need for effective liaison between the SAB and the Local Planning Authority.

Current guidance suggests that pre-application discussions with developers will be important in ensuring that applications are submitted in full knowledge of SuDS requirements. For the larger planning applications by consultants this will soon become standard practice. It will be the smaller

one off planning applications and windfall sites where more resource may be required to ensure the process runs smoothly. It is possible that the partnership arrangements discussed above could provide an appropriate mechanism for meeting this need and ensuring ongoing liaison between partner authorities and departments simultaneously. You may wish to consider how you will promote the requirement for SAB approval to ensure that people applying for planning are aware of what is required.

Lead Local Flood Authorities in two-tier areas may also wish to consider delegating some of their SuDS approval responsibilities to district councils. This could enable the LLFA to concentrate on handling developments of a strategic scale, while tapping into the existing expertise and local knowledge of district planning authorities. This principle may also be appropriate for other aspects of the LLFA role.

Urban Design, Sustainability and Climate Change Adaptation

SUDS are part of a new approach to drainage management driven by the Water Framework Directive, in which water quality and amenity are as important as managing volumes of water. In this respect, sustainability and consideration of biodiversity and natural habitat issues becomes an integral part of the design and development process. Therefore as well as assessing the proposed scheme for flood risk there also has to be consideration into how the scheme will improve water quality and habitats.

The Flood and Water Management Act requires risk management authorities to undertake their responsibilities consistently with sustainable development principles. Effective integration of planning and development policy, flood risk management (including emergency response) and building design approaches will allow resilience to climate change to be 'built into' new developments.

It should be noted, however, that this will not address the residual problems from previous developments and sub-standard drainage design. LLFAs may wish to consider developing a clear policy approach towards existing developments, particularly as the present financial position makes it very unlikely that they will be able to tackle this issue other than in exceptional cases where serious flooding necessitates remedial action on a case-by-case basis.

What you need to consider for your local strategy....

- How the SFRA should be used to inform the local strategy about where the flood risk is;
- How the Local Strategy can provide the detail as to why specific areas may not be suitable for development and thereby feed that into the LDF;
- The local strategy could provide the evidence for local flood risk standing advice for the SAB;
- Using the best available information in the Local Strategy, setting policies for issuing Land Drainage Act consents;
- How the local strategy can influence and link to Core Strategies and Local Development Frameworks; and
- How public engagement on Core Strategies can be dovetailed with developing the local strategy.

Addressing the skills gap

Lead local flood authorities will need to increase their flood risk management capacity and skills in order to deliver their new responsibilities as conferred under the Flood and Water Management Act 2010. Central to this will be the ability for lead local flood authorities to become 'intelligent clients', capable of commissioning and challenging expert external advice and of potentially producing work in house if it turns out to be better value. Local Authority officers will need to understand both the technical and local issues under consideration.

The local flood risk management strategy should include details of what skills and staff will be needed to be recruited, retained and enhanced to ensure that the plans laid out in the strategy can be implemented. It will need to detail what is required not just from the lead local flood authority but from all the risk management authorities in the area for the management of local flood risk. The legislation on the local strategy notes that lead local flood authorities may release guidance to accompany the strategy. This guidance may be an appropriate place to detail any action plans to get risk management authorities up to capacity. In other words it will inform your business case to either retain or recruit new resources into your teams if appropriate.

Assessing capacity

Understanding current capacity in the organisation is crucial to deciding what steps need to be taken to improve the team. Defra has produced a 'Draft strategy for skills and capacity building in local authorities for local flood risk management' This strategy identifies the skills and capacity gaps that need to be filled to undertake the new role effectively and efficiently and establishes a summary and programme of skills and capacity building that Defra will be delivering to help address this need.

This identifies the following areas of key knowledge to be considered:

- risk management approaches to local flooding;
- delivering the legislative requirements;
- surface water management plans;
- geographical information systems and mapping skills; and
- sustainable drainage systems (SuDS) knowledge.

It is also important that certain skills which are currently found in LLFAs are maintained. These include:

- planning knowledge (particularly of PPS 25);
- highways drainage;
- emergency/resilience planning;
- landscape design; and
- delivery skills (e.g. project management, policy analysis).

Improving the capacity of the lead local flood authority

There are three main aspects of improving the capacity of LLFAs: Recruiting, retraining and resourcing.

Recruiting new staff:

There is currently estimated to be a 10% shortage in qualified drainage engineers in the public sector and finding appropriate staff to fill these roles may prove difficult, nonetheless recruiting from the market may be the most effective way of getting high quality skills and knowledge into the organisation.

It is also possible to recruit trainees. The Environment Agency currently has a scheme (foundation Degree in Flood and Coastal Management) which provides local authority trainees with two years of part time training at the University of the West of England while working 3 days a week with a Local Authority. Defra currently provide half the funding for a trainee.

There is also the possibility of retraining existing local authority staff via the EA Diploma.

Additionally level 2 and level 3 NVQ courses have been established in Environmental Conservation (namely Rivers, Coast and Waterways and Flood risk Management).

A further option to consider is whether there can be a pooling of resources across local authorities. In two-tier systems this may involve working with officers from local planning authorities. It may also mean having joint officers working for two or more Lead Local Flood Authorities.

It may also be possible to organise secondments from other organisations such as the Environment Agency or District Councils who may have appropriate staff but are under financial pressure to cut costs. For example District Councils may still have experienced drainage engineers. In both Thames and North West regions, discussions have been had about Environment Agency staff working with Lead Local Flood Authorities.

Retraining current staff
Particularly in the current climate, redeployment will be a crucial element of establishing teams. There are numerous methods of providing training for staff. The Defra strategy for skills and capacity focuses on the issues that will need to be determined including:

- underlying principles of learning and information provision;
- training areas that should be focused on;
- method and supplier of training; and
- target audiences for training

Resourcing
Defra is providing a number of resources to aid capacity building. These include an Information Dissemination Portal, funded by the FCERM Research and Development Programme. The main aim of the portal is to provide key guidance and sources of information; news; forums to share best practice and to share knowledge/ideas; e-learning and key contacts for all organisations. Most of this knowledge is already out there but can be difficult to locate, but the portal will make all much easier to access.

Other tools, such as Flownet, the National Flood Risk and Water Management Community on the LG Group's Communities of Practice website, can be used to help learn from best practice in improving capacity across the country.

What you need to consider for your local strategy....

- Consider details of what skills and staff will need to be recruited, retained and enhanced to ensure that the plans laid out in the strategy can be implemented;
- What method of increasing the skills capacity of the organisation will you consider?;
- Which of your neighbours and partner organisations will need to be involved in the plans?; and
- How will you tackle this, with what finance resources and over what timeframe?

Flood risk management funding

Revenue Funding
The funding for development, application, maintenance and monitoring of the strategy will be supported through the Defra grant given to lead local flood authorities to allow them to meet their new responsibilities. This will be paid via Area Based Grant. This is not ring fenced and LLFAs will need to put a business case for spend to meet the requirements of the recent legislation. This will provide a steer in preparing individual business cases. For greater detail about anticipated need for funding support, local strategies will provide the evidence base in many cases, as this should encapsulate the programme that local partners want and hope to be able to deliver over the lifetime of the strategy.

The local strategy, and the actions it may lead to, is not necessarily for the lead local flood authority to pay for alone. Other local partners may see benefit in funding elements of the strategy preparation, and in funding and/or delivering certain risk management activities the strategy highlights. Strategies should consider the benefits as well as the costs of risk management works, and look for contributions towards costs from those that stand to benefit. In doing so, the strategy does not need to be constrained by the amount available to the lead local flood authority alone.

In addition to the specific area-based grants, formula grant will continue to support ongoing flood and coastal risk management responsibilities undertaken by local authorities. These include drainage activity and the maintenance of ordinary watercourses and coastal defences, and payments of levies to the Environment Agency ('local levy') and internal drainage boards ('special levy'). A total of £100 million is expected to be spent on these items in 2010/11. These activities and the resources dedicated to them should form part of the local strategy. Doing so may highlight efficiencies and scope for better prioritisation and co-ordination of activity amongst partners, and better use of each others' skills and capabilities as well as resources.

In preparing your business case it is important to understand that formula grant is not ring fenced, so each local authority does not know exactly how much it will receive for a single service within the Environment and Protective Services sub block of grant. Whilst this may appear unhelpful, it actually means that each local authority has complete discretion about which priorities to fund. It is worth recognising this flexibility in preparing a business case, and again, to draw from the programme you have outlined either within or as part of developing and agreeing the local strategy.

The outturn returns collected by DCLG each year indicate that local authorities are investing nearly £30 million each year in additional schemes through the Regional Flood Defence Committees' local levy. However, to date they have only been able to spend their money on schemes to prevent coastal and fluvial flooding. Under the Act and the creation of Regional Flood and Coastal Committees they will in future be able to also spend it on coastal erosion projects and surface water flooding. As this may lead to increasing use of the local levy, Defra has funded an appropriate increase in formula grant.

It is also important to note that an element of formula grant is paid to each local authority on the basis of previous years' local levy payments. This means that money paid in levy is partially compensated in future year's formula grant allocations.

Capital Funding
Defra has been consulting on the future funding of flood and coastal erosion risk management in England from November 2010. The consultation document recognises that the current system is designed to be efficient and deliver value for money for the taxpayer, but limits local choice and discretion, and leaves many schemes facing a long and in some cases indefinite wait before defences can be provided and fully paid for. Under the new system, all schemes would be offered a fixed subsidy based on Government paying for a share of the benefits delivered when outcomes are achieved – 'payment for outcomes'. Many schemes would be offered 100% funding if the benefits and outcomes significantly outweigh the costs involved. In other cases, partial funding would be available. It is hoped that this approach encourages people to find cheaper ways to achieve the outcomes, and/or find other funding to meet the difference.

The consultation proposals are designed to increase the amount of investment going in to flood defences, and allow more local decision making by Regional Flood and Coastal Committees, and the LLFAs represented on them, to decide which schemes to take forward. This intends to overcome a past criticism that funding decisions can appear excessively centralised with little decision making power left for local authorities and local people.

Proposed Changes in the Government Consultation

The underlining proposal is to move from a process that is driven by the availability of central funding, which limits how much can be achieved and the extent to which local communities can influence priorities, and instead to move to a system where national budgets pay a share of costs according to the benefits and outcomes achieved and local interests can have a greater say about priorities.

Under the arrangements in place to date, the Environment Agency prioritised its investment in to those schemes that help meet their targets from Ministers. Outcome targets included achieving overall value for money, and moving numbers of households from one level of risk to a better one as well as recognising environmental and biodiversity benefits.

Under the consultation proposals, the Government would instead set a rate of payment for the achievement of outcomes. The Environment Agency will know exactly how much funding can be provided to each scheme using Grant in Aid, including whether a scheme would be eligible for funding in full (where the outcomes are greatest) or require a contribution and/or reduction in costs in order to go ahead. This will give local areas, through their Lead Local Flood Authorities and Regional Flood and Coastal Committees, a much bigger say in which schemes go ahead, and which schemes should be supported by local contributions. In essence this means calculating a fixed amount for any project that will be funded from FDGiA. Any further funding would have to come from other sources.

Levels of funding from Government would be based on a 'payment for outcomes' system, so that the value of grants on offer relate directly to the level of outcomes expected, and the duration that benefits are expected to last for. Once set, payment levels per outcome would not be expected to change over time, giving greater long-term certainty of funding from Government in every case. All projects would have to demonstrate long-term benefits are greater than their costs to make sure they are worthwhile doing at all.

If the Grant in Aid does not cover the full cost of the scheme then the funding has to be found from somewhere. Four main solutions are possible:

1) The cost of the scheme is reduced either by finding efficiencies or changing the approach.
2) Local partners contribute towards the scheme based on who stands to benefit.
3) Private local funding is found, again on the basis of who stands to benefit.
4) The RFCC uses local levy to top up the rest of the scheme.

The paper argues that much of the benefits of flood defence are localised and private, on the basis that improved levels of protection will prevent flooding and therefore avoid costs for property owners and other people in the locality, helping to keep insurance premiums low and benefit the local economy. To quote the paper:

"The Pitt Review said that long-term plans should not simply assume all flood risk management costs will be met centrally. If they were, local ambitions would always be limited by what central Government can afford. Instead, he recommended that those who would benefit from flood defences should be allowed and encouraged to contribute towards their costs. In doing so, each local area can have a bigger say in what is done. The objective of this consultation is to pave the way towards making this vision a reality, and consider how to enable more flood defence schemes to get underway in the future. In recent years funding has been focused on those projects at the top of the national priority list, those that are good enough to make the grade. This has led to many other projects with strong local support being held back or deferred time and time again."

If no extra funding is forthcoming then the same number of schemes as under the present system can be funded by using the RFCC money to fill gaps in Grant-in-Aid as opposed to it having to fully fund schemes as it does at present.

Some allowance of the ability of communities to pay has been taken. The 20% most deprived areas of the country will receive extra FDGiA funding for any flood defence schemes in their area. Using the Treasury Green Book standard they will receive a weighting of 225%. This will use the DCLG Index of Multiple Deprivation to assess where such areas are.

The stated purpose behind these changes is twofold. Firstly it allows for other streams of investment to be potentially added and hence mean that more schemes can be delivered. Secondly it acts as a driver down of costs.

Central Funding

Department of Environment, Food and Rural Affairs (Defra)

- Defra expects to spend more than £2.1 billion on flooding and coastal erosion over the next four years;
- This is approximately **8% less** than spend by Defra over the previous four years (an average £590m a year). These savings will be partly offset through efficiencies in delivery and procurement, and better risk-based prioritisation;
- The £2.1 billion consists of roughly **£1bn capital** (approximately £261m per year) and around **£1.1bn resource** (includes 'programme' spend such as maintenance, flood forecasting, and incident response; and 'admin' – people and back office costs); and
- Defra remains committed to fully funding local authority new burdens under the Flood and Water Management Act and has confirmed funding support through Area Based Grant for Lead Local Flood Authorities (£21 million in 2011/12, and £36 million a year thereafter, which reflects the phasing-in of the Flood and Water Management Act 2010).

Department for Communities and Local Government (DCLG)

On top of the £2.1bn from Defra, local authorities will be spending money supported by formula grant from the Department for Communities and Local Government. This is expected to be around **£100m** this year, based on indications from the outturn returns collated by CLG from local authorities.

European Union

European Union funding is available through the Interreg scheme. Interreg is an European Community initiative that aims to stimulate interregional cooperation in the European Union. It started in 1989, and is financed under the European Regional Development Fund (ERDF). The current programme is Interreg IV, covering the period 2007–2013.

These schemes encourage local authorities in countries through North West Europe to join together and share information and practices. Match funding for specific local projects are available.

Case study

Bradford Metropolitan Council was part of the successful FloodResilienCity and the Eden Rivers Trust was part of the ALFA consortium.

Essex County Council is currently lead partner on a bid including Chelmsford Borough Council and Chichester District Council. This is for a three year project involving local authorities in France and Belgium to allow greater learning and co-operation across borders. It will allow a major piece of work on the River Chelmer which will enable land to be opened up to development.

Following the disbanding of the Regional Development Agencies, the Department of Business, Innovation and Skills (BIS) has announced the formation of sub-regional groups called Local Enterprise Partnerships. They are locally-owned partnerships between local authorities and businesses. Local enterprise partnerships will play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs. They are also a key vehicle in delivering Government objectives for economic growth and decentralisation, whilst also providing a means for local authorities to work together with business in order to quicken the economic recovery.

These are fledgling organisations but, particularly in areas which as a whole are prone to flooding, there may be enthusiasm for these organisations to assist in putting together funding for flood defence programmes.

Section 106 agreements
Section 106 (S106) of the Town and Country Planning Act 1990 allows a local planning authority (LPA) to enter into a legally-binding agreement or planning obligation with a landowner in association with the granting of planning permission. The obligation is termed a Section 106 Agreement.

These agreements are a way of delivering or addressing matters that are necessary to make a development acceptable in planning terms. They are increasingly used to support the provision of services and infrastructure, such as highways, recreational facilities, education, health and affordable housing. It could be possible to demand work on a flood defence as part of a new development.

Funding for specific projects.
The LGIU have commissioned work into possible funding alternatives. There are five central propositions:
1. Bonds issued by local government;
2. Private or public sector loans/leasing whose payback is based upon reduced insurance premiums from beneficiaries of the scheme;
3. Supplements on business rates to pay for local flood protection;
4. Targeting a levy on council tax to properties that benefit from flood defence projects;
5. Potential new sources -Tax Incremental Financing and Asset-Backed Financing.

What you need to consider for your local strategy....

- The local strategy should make comment about which forms of funding are being considered by the lead local flood authority.
- It will also help to identify any further actions that will be needed to be taken by the lead local flood authority (or other risk management authorities) to ensure that the new funding alternatives can take place; and
- Schemes that require collection of money from local residents would require resource and particular skill-sets, and changes to business rates or a levy would require political decisions to be agreed.

Data management

This chapter considers data and information which refers to all data, documents, facts, intelligence and advice that has been recorded. This could be in hard copy or electronic format. Formats it might involve include emails, registers, spreadsheets, maps, photographs, videos, microfilm, methodologies, reports or letters.

There might be a significant amount of local information that is stored only in the heads of officers or residents. It may make sense to include some suggestions in the strategy as to how this information can be recorded.

Data sharing
In particular, the lead local flood authority and the Environment Agency have powers to request information for flood risk and coastal erosion risk management functions from any person 'where it is required for the pursuance of their flood risk management functions. A person means a legal person i.e. an actual person but also an entity with a legal personality such as a company or a trust. These powers are due to be commenced in April 2011.

The statutory guidance, detailed below, provides guidance on how to request information from a person other than a risk management authority. All Risk Management Authorities have obligations under the Flood and Water Management Act to co-operate with other risk management authorities and so they should all be part of the local partnership to deal with flood risk. This should be the key forum through which to identify what data is required and how best to share it. Working in partnership presents data sharing challenges but also opportunities to utilise data and information in ways that can potentially transform service delivery. CLG has published a summary report on Effective Partnership Data Management which may be a helpful guide when establishing data sharing protocols.

The strategy should highlight what systems are in place for sharing data. It should also highlight who requires access to what information and how this can be achieved.

Statutory Guidance
The Environment Agency and Defra have jointly prepared draft guidance on co-operation and information sharing set out in the FCERM consultation document.

Risk management authorities should follow the guidance when finalised, expected to be after April 2011. The guidance will aim to facilitate constructive and active partnerships to manage risk, and to ensure information is requested in a suitable way.

It provides useful information such as principles of good information requests and a flowchart to help decide whether it is appropriate to use the power to request information. It also clarifies roles and activities for risk management authorities.

Available Data
One of the greatest difficulties of data and information sharing is knowing what is available. A large amount of data has probably already been shared between partners for the purpose of the Preliminary Flood Risk Assessment. This process will have helped highlight what information is available in each organisation but the paragraphs below help highlight some of the key data that each of the other risk management authorities can be expected to have:

Environment Agency
A significant amount of the information the Environment Agency provides for Lead Local Flood Authorities can be located on the Geostore site.

The EA holds a vast array geospatial data available on request to the Environment Agency's partners and customers. The Geostore system allows users to register, log on, view the available data and order an electronic copy of this data in a number of different formats that are then accessed through online delivery or on CD. This data is under license and is restricted to the relevant geographical

areas for which the user is registered. Some users will be required to pay for this data, however for local authorities, the majority of data is available free of charge.

Once registered for this service, users receive automatic updates of any changes made to the datasets allowing certainty that the most up to date information is in use.

However this information consists primarily of national datasets (divided by administrative boundary) so there should be good relationships with local Environment Agency teams to help establish what other information is available and can be shared.

District Councils
Records and processes by which data is recorded can vary hugely between districts. Some councils have large and well-organised drainage teams which have good records in the area. Other councils have no useful records. An important goal of the local flood partnerships is to agree a protocol and memorandum of understanding for how flood incidents are recorded to ensure more consistent and effective records throughout the county. This will allow effective and informed decision-making to identify where the greatest priorities are.

Water Companies
The key form of data that the Water Companies can share is the DG5 registers which list properties at risk of flooding from sewers due to hydraulic overload. This is based on flooding events that have actually occurred. There is further data that might also be gleaned from water companies but as this can be potentially extremely time intensive for the water companies, it is important to discuss further with them what further data may be necessary.

Working with Water UK, the Environment Agency developed a protocol to share data on surface water management, agreeing to prioritise sharing historic flood records, areas covered by hydraulic models and the results of hydraulic models. The Overarching Agreement was finalised in September 2009, stating types of data to be shared. Daughter Agreements are being developed between Regions and individual water companies.

Internal Drainage Boards
Drainage Boards also hold a significant amount of data usually containing information on the extent of their assets together with maintenance regimes and historical information. Where Drainage Boards exist in local authority areas, contact should be made to share the available data.

Asset Register
The Flood and Water Management Act 2010 makes the following requirement of all lead local flood authorities:
A lead local flood authority must establish and maintain—
(a) a register of structures or features which, in the opinion of the authority, are likely to have a significant effect on a flood risk in its area,
(b) a record of information about each of those structures or features, including information about ownership and state of repair.

This obligation comes into force in April 1st 2011. The expectation is not that the register is fully in place by April 1st 2011 but that a process for collecting structures and features and for monitoring them is in place. The register is not public but needs to be shown to the Secretary of State, if requested. In order to aid the planning process it would be advisable if Local Planning Authorities were able to access it.

A decision needs to be made by the Lead Local Flood Authority as to what constitutes a 'significant effect on a flood risk in its area' and this should then be recorded in the strategy.

Duty to Investigate Flooding Incidents
The Flood and Water Management act mandates the Lead Local Flood Authority to produce reports on flooding when it is considered necessary or appropriate. The Act states:

Local authorities: investigations
(1) On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate—
(a) which risk management authorities have relevant flood risk management functions, and
(b) whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.
(2) Where an authority carries out an investigation under subsection (1) it must—
(a) publish the results of its investigation, and
(b) notify any relevant risk management authorities.

Clearly not every flood that occurs and is reported can be investigated but criteria for deeming whether an investigation is necessary or appropriate. Flooding incidents are increasingly likely to be reported in the first instance to the Lead Local Flood Authority. Given that resources for this role will be limited, sensible criteria for a flood requiring investigation need to be developed and published in the strategy.

It is also key that an agreed process for reporting and referring flood events is in place. It's important that all reported floods, whether or not it is appropriate to investigate them, are recorded. Similarly there may be some floods which have a clear source of the problem and can be referred to the appropriate risk management authority without a full investigation taking place.

As mentioned in discussion of district councils, a protocol and memorandum of understanding needs to be developed for all Risk Management Authorities so that events are recorded. It seems unrealistic to expect only the Lead Local Flood Authority to record such events and a more effective process would allow officers from other risk management authorities to record directly into the same register.

What you need to consider for your local strategy....

- Understand what data and information is needed;
- Understand what data and information is available from each Local Risk Management Authority;
- Put in place arrangements to share the information, taking account of statutory and non-statutory guidance;
- Have a clear record of what information is available and where it can be accessed; and
- The data gathered will provide the evidence base for many of the policies the Local Strategy will produce, such as what constitutes "a significant effect on flood risk in the area" for recording assets, or when it is "necessary and appropriate" for a lead local flood authority to investigate a flooding incident.

Conclusion

Whilst this framework is not intended to be prescriptive on how lead local authorities might approach their development of their local strategy, it is intended to give clear guidance on what aspects should be considered.

Like the National Strategy, this framework is also a living document and will be updated regularly as required to capture developments in National Policy, the commencement of additional parts of the Flood and Water Management Act, and to clarify future funding arrangements.

The reputations of lead local flood authorities will depend in no small degree upon their capacity to implement the proposals they put forward in their strategies. To this end, the LG Group will endeavour to keep this guidance up to date and also communicate new funding arrangements to lead local flood authorities and assist them with any queries they have about maintaining and implementing their local strategies.

Appendix A

The following table is intended to provide the key requirements, legislative context and timescales.

Requirements	Sub-requirements / Details	Legislation	Duty or Power	National Deadline
Strategy Develop, maintain, apply and monitor a Strategy for local flood risk management of the area. Local flood risk means flood risk from surface runoff, groundwater and ordinary watercourses.	The Strategy must specify: • The risk management authorities in the authority's area; • The flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area; • The objectives for managing local flood risk (including any objectives included in the authority's flood risk management plan prepared in accordance with the Flood Risk Regulations 2009); • The measures proposed to achieve those objectives; • How and when the measures are expected to be implemented; • The costs and benefits of those measures, and how they are to be paid for; • The assessment of local flood risk for the purpose of the Strategy; • How and when the Strategy is to be reviewed and • How the Strategy contributes to the achievement of wider environmental objectives. The Strategy must be consistent with the Environment Agency's National Strategy. All risk management authorities, in exercising their flood and coastal erosion risk management functions, must act in a manner which is consistent with the National Strategy and Local Strategy respectively (except in the case of a water authority for the latter, who must have regard for the Local Strategy). The LLFA must consult all affected risk management authorities and the public about the Strategy, and in turn the Environment Agency must consult the LLFAs and public in the production of the National Strategy.	Flood and Water Management Act 2010	Duty	None

Preliminary Flood Risk Assessment (PFRA) Report Prepare a PFRA in relation to flooding in the LLFA's area. The LLFA is not required to include information about flooding from the sea, Main Rivers and reservoirs unless the authority thinks that it may affect flooding from another source. The Environment Agency must review the PFRA report and may recommend modifications, following which the LLFA may revise its PFRA.	A PFRA is a report about past floods and the possible harmful consequences of future floods. The report must be based on relevant information which: • Is in the possession of the person preparing the report; • Is in the possession of the Environment Agency; • Is in the possession of an authority listed in regulation 36(3); • Is available to the public. The floods to be included are those which had significant harmful consequences for human health, economic activity or the environment (including cultural heritage), or which would have significant harmful consequences for those matters if they were to occur now. The report may ignore past floods of a kind that are not likely to occur now. The report must include: • Any information that the person making the report has about the extent and the conveyance route of past floods, and • An assessment of the harmful consequences of past floods. The assessment of possible consequences of future floods must take account of: • Topography, • The location of watercourses, • The location of floodplains that retain flood water, • The characteristics of watercourses, • The effectiveness of any works constructed for the purpose of flood risk management, • The location of populated areas, • The areas in which economic activity is concentrated, and • The current and predicted impact of climate change and any other long term developments. A LLFA must have regard to any guidance issued by the Environment Agency about the form of a PFRA.	Flood Risk Regulations 2009	Duty	22nd Dec 2011 (EA to publish)

Identify areas of significant flood risk A LLFA must determine whether, in its opinion, there is a significant flood risk in its area, and identify the part of the area affected by the risk (the "flood risk area"). Flood risk from sources including Main Rivers, the sea and reservoirs do not need to be taken into account unless the authority thinks that it may affect flooding from another source. The authority may have regard to any guidance issued by the Minister about the criteria for assessing whether a risk of flooding is significant.	The Environment Agency will provide LLFA with core national datasets and proposed 'areas of significant risk'. The LLFA will subsequently review these data and the proposed 'areas of significant risk' using local knowledge and information. Proposed amendments or additions to the 'areas of significant risk' will need to be included in the preliminary assessment report which the LLFA must provide to the Environment Agency. The Environment Agency must review the determination and identification of flood risk areas and may recommend that the lead local flood authority identifies a different flood risk area, an additional flood risk area, or no flood risk area. If the lead local flood authority disagrees with a recommendation of the Agency, the matter must be referred to the Minister, who must determine the flood risk area (if any) for which the LLFA must prepare a flood hazard map and a flood risk map under regulation 19.	Flood Risk Regulations 2009	Duty	Dec 2011 (EA to publish)
Prepare flood hazard maps and flood risk maps A LLFA must prepare, in relation to each identified area of significant risk, a flood hazard map and a flood risk map. Flood risk from sources including Main Rivers, the sea and reservoirs do not need to be taken into account unless the authority thinks that it may affect flooding from another source. The Environment Agency must review flood hazard maps and flood risk maps and may recommend modifications.	A **flood hazard map** is a map which identifies flood risk areas and shows: • The likely extent (including water level or depth) of possible floods, • The likely direction and speed of flow of possible floods, and • Whether the probability of each possible flood occurring is low, medium or high (in the opinion of the person preparing the map). The following may be ignored: • A medium or high probability flood caused only by groundwater, • A medium or high probability flood which would affect only an area of coastline that, in the opinion of the person preparing the map, is adequately protected against flooding. For the purposes of this regulation: • Low flood risk = chance of occurrence in any one year is 0.1% or less (Flood Zone 1) • Medium flood risk = chance of occurrence in any one year is between 0.1% and 1% (Flood Zone 2) • High flood risk = chance of occurrence in any one year is > 1% (Flood Zone 3).	Flood Risk Regulations 2009	Duty	Dec 2013

	A **flood risk map** is a map showing in relation to each flood risk: • The number of people living in the area who are likely to be affected in the event of flooding, • The type of economic activity likely to be affected in the event of flooding, • Any industrial activities in the area that may increase the risk of pollution in the event of flooding, • Any relevant protected areas that may be affected in the event of flooding, • Any areas of water subject to specified measures or protection for the purpose of maintaining the water quality that may be affected in the event of flooding, and • Any other effect on human health, economic activity or the environment (including cultural heritage).			
Prepare flood risk management plans A LLFA must prepare a flood risk management plan for each area of significant risk. The Environment Agency must review a flood risk management plan prepared under this regulation and may recommend modifications. The LLFA must consult the authorities that may be affected by the plan, and the public regarding the content of the flood risk management plan and have regard for guidance issued by the EA.	The plan must include details of objectives set by the person preparing the plan for the purpose of managing the flood risk, and the proposed measures for achieving those objectives (including measures required by any provision of an Act or subordinate legislation). In setting the objectives, the person preparing the plan must have regard to the desirability of reducing the adverse consequences of flooding for human health, economic activity or the environment (including cultural heritage), and reducing the likelihood of flooding, whether by exercising powers to carry out structural work or otherwise. The measures must, in particular, include measures relating to: • The prevention of flooding, • The protection of individuals, communities and the environment against the consequences of flooding, and • Arrangements for forecasting and warning. In determining the proposed measures for achieving the objectives, the person preparing the plan must have regard to: • The costs and benefits of different methods of managing the flood risk, • The information included in the flood hazard map and the flood risk map, • The river basin management plan for the area, • The effect of floodplains that retain flood water, • The environmental objectives, within the meaning of regulation 2 of the Water Environment Regulations, and • The likely effect of a flood, and of different methods of managing a flood,	Flood Risk Regulations 2009	Duty	Dec 2015

	on the local area and the environment. A flood risk management plan must include: • A map showing the boundaries of the flood risk area, • A summary of the conclusions drawn from the flood hazard maps and flood risk maps for the area, • A description of the proposed timing and manner of implementing the measures, including details of the bodies responsible for implementation, • A description of the way in which implementation of those measures will be monitored, • A report of the consultation, and • Where the person preparing the report thinks it appropriate, information about how the implementation of measures under the flood risk management plan and the river basin management plan for the area will be co-ordinated.			
Co-operation Authorities must co-operate with each other in exercising functions under both the Act and the Regulations.	Authorities can delegate functions to each other by local agreement (except the Strategy). Risk Management Authorities may share information with each other for the purposes of discharging their duties.	Flood and Water Management Act 2010 & Flood Risk Regulations	Duty	Ongoing
Power to Request Information LLFAs and the Environment Agency may request a person to provide information in connection with the authority's risk management functions.	The information must be provided in the form/manner and period specified within the request. An enforcement notice may be given if the person fails to comply with the request. A penalty may also be imposed.	Flood and Water Management Act 2010 & Flood Risk Regulations	Power	Ongoing
Duty to Maintain a Register Establish and maintain a register of structures, including ownership which are believed to have a significant effect on a local flood risk.	Must be available for public inspection.	Flood and Water Management Act 2010	Duty	None

Investigations To ensure greater co-ordination of information and avoid situations where authorities do not accept responsibility, the LLFA is required to investigate flooding incidents in its area (where other risk management authorities do not respond and to the extent that it considers necessary or appropriate) to identify which authorities have relevant functions to deal with the flood and whether each of them intends to respond.	The LLFA is required to publish the results of any investigation and notify any relevant authorities.	Flood and Water Management Act 2010	Duty	Ongoing
Sustainable Development In exercising its risk management functions, LLFAs must contribute towards achievement of sustainable development.	-	Flood and Water Management Act 2010	Duty	Ongoing
Incidental Flooding If the conditions below are satisfied, a LLFA may plan, erect, maintain, alter or remove buildings or other structures (including those built for flood defence purposes) in a way that will or may cause flooding, and increase in the amount of water below ground or coastal erosion. The conditions are: • That the authority considers the work in the interests of nature conservation, preservation of cultural heritage or people enjoyment of the environment or cultural heritage; • The authority considers the	All works must have regard for the national and local flood risk management strategies.	Flood and Water Management Act 2010	Power	Ongoing

benefits of the work will outweigh the harmful consequences listed above; • The authority has consulted the Environment Agency and has gained consent if any work affects Main River; • The authority has consulted any other local authorities and land owners who may be affected by the work.				
Designation of Features LLFAs have powers to designate structures and features that affect flooding, to overcome the risk of a person altering or removing a structure or feature (that, for example, may be on private land and is relied on for flood risk management) without consent.	A conditional Power of Entry onto land exists for an authorised person to ascertain any offences in relation to designated structures. The EA, district councils and the IDB are also empowered to act as a designating authority.	Flood and Water Management Act 2010	Power	Ongoing
Sustainable Drainage LLFAs must establish a SuDS Approval Body (SAB), having a range of responsibilities including: • The approval of proposed drainage systems in new and redevelopments; • Determining the drainage application aspect of planning permission; • Adopting and maintaining SuDS which serve more than one property, where they have been approved; • Designating SuDS on private	-	Flood and Water Management Act 2010	Duty & Power	Ongoing

property as features that affect flood risk and, on the same register, detailing all approved SuDS structures and features; • Approving surface water drainage systems (the right for new developments to connect their surface water drainage to the public sewerage system is conditional upon this); • Applications may be 'free-standing' where planning permission is not required or as a 'combined application' with planning permission.; • A non-performance bond may be required from the developer as a deposit.				
General Powers: Flood Risk Management Works LLFAs have powers to undertake works to manage flood risks from surface runoff and groundwater. Powers to do works on ordinary watercourses remain with either district authorities or IDBs (but all works must be consistent with the Local Flood Risk Management Strategy).	LLFAs will take over the Environment Agency's role in deciding whether to allow works by third parties that may affect water flows to take place (with the exception of new and replacement culverts which still require EA consent). LLFAs overview and scrutiny committee may make recommendations which other RMAs must have regard to. This is an important opportunity for councils to engage with key stakeholders such as the EA and water companies.	Flood and Water Management Act 2010	Power	Ongoing

Glossary

ABI	Association of British Insurers
Act	A Bill approved by both the House of Commons and the House of Lords and formally agreed to by the reigning monarch (known as Royal Assent)
ADA	Association of Drainage Authorities
Assets	Structures or a system of structures used to manage flood risk.
Building Regulations	The UK Building Regulations are rules of a statutory nature to set standards for the design and construction of buildings, primarily to ensure the safety and health for people in or around those buildings, but also for purposes of energy conservation and access to and about other buildings
Catchments	An area that serves a river with rainwater that is every part of land where the rainfall drains to a single watercourse is in the same catchment.
CFMP	Catchment Flood Management Plan
CLA	Country Land and Business Association
Climate change	The change in average conditions of the atmosphere near the Earth's surface over a long period of time.
Coastal erosion	The wearing away of the coastline, usually by wind and/or wave action.
Coastal flooding	Occurs when coastal defences are unable to contain the normal predicted high tides that can cause flooding, usually when a high tide combines with a storm surge (created by high winds or very low atmospheric pressure).
Cultural heritage	Buildings, structures and landscape features that have an historic value.
Culvert	A covered structure under a road, embankment etc, to direct the flow of water.
DCLG	Department for Communities and Local Government
Defences	A structure that is used to reduce the probability of floodwater or coastal erosion affecting a particular area (for example a raised embankment or sea wall)
Defra	Department for Environment, Food and Rural Affairs
Deposition	The process whereby sediment is placed on the sea bed, shoreline, river bed or floodplain.
Drainage authorities	Organisations involved in water level management, including IDBs, the Environment Agency, and RFDCs.
FCERM	Flood and coastal erosion risk management
Flood	The temporary covering by water of land not normally covered with water
Groundwater flooding	Occurs when water levels in the ground rise above the natural surface. Low-lying areas underlain by permeable strata are particularly susceptible.
IDB	Internal drainage board
Important infrastructure	Infrastructure that supplies essential services, for example, water, energy, communications, transport.
LGA	Local Government Association
LLFA	Lead local flood authority
Main River	A watercourse shown as such on the Main River Map, and for which the Environment Agency has responsibilities and powers
NFU	National Farmers Union
Ordinary watercourses	All watercourses that are not designated Main River, and which are the responsibility of Local Authorities or, where they exist, IDBs.
Recovery	The process of rebuilding, restoring and rehabilitating the community following an emergency.
Reservoir	A natural or artificial lake where water is collected and stored until needed. Reservoirs can be used for irrigation, recreation, providing water supply for municipal needs, hydroelectric power or controlling water flow.
Resilience	The ability of the community, services, area or infrastructure to withstand the consequences of an incident.
RFDC	Regional flood defence committee

RFCC	Regional flood and coastal committee
Risk	Measures the significance of a potential event in terms of likelihood and impact. In the context of the Civil Contingencies Act 2004, the events in question are emergencies
Risk assessment	A structured and auditable process of identifying potentially significant events, assessing their likelihood and impacts, and then combining these to provide an overall assessment of risk, as a basis for further decisions and action.
Risk management authorities	Organisations that have a key role in flood and coastal erosion risk management as defined by the Flood and Water Management Act (2010). These are the Environment Agency, lead local flood authorities, district councils where there is no unitary authority, internal drainage boards, water companies, and highways authorities.
River flooding	Occurs when water levels in a channel overwhelms the capacity of the channel.
RSPB	Royal Society for the Protection of Birds
SEA	Strategic environmental assessment
SMP	Shoreline Management Plan
Standard of protection	The flood event return period above which significant damage and possible failure of the flood defences could occur.
SuDS	Sustainable drainage systems
Surface water flooding	Occurs when the level of rainfall overwhelms the capacity of the drainage system to cope.
SWMP	Surface Water Management Plan
Voluntary groups	Self-governing organisations, some being registered charities, some incorporated non-profit organisations. They deliver work for the public benefit using volunteers.
Watercourse	A channel (natural or artificial) along which water flows