


Local flood



**and water
management
strategy**





Hampshire County Council Economy,
Transport and Environment Department,
The Castle,
Winchester,
Hampshire,
SO23 8UD

Tel: 0845 603 5638

Fax: 01962 847055

www.hants.gov.uk

No part of this document may be copied or reproduced by any means without prior written permission from Hampshire County Council. Any advice, opinions or recommendations within this document; should be read and relied upon only in the context of this document as a whole, do not in any way purport to include any manner of legal advice or opinion, are based on the information made available to Hampshire County Council at the date of this document and on current UK standards, codes, technology and construction practises as at the date of this document.

No liability is accepted for any use of this document other than for the purpose for which it was originally prepared and provided.

Hampshire County Council cannot accept responsibility for any use or reliance on the contents from this report by any third party.

Maps are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

Contents

Foreword	2	4. Sustainable and Resilient	
Executive Summary	4	Development Policy	22
1. Effective Partnership Working Policy	8	Our role within the plan making process ...	22
Responsibilities.....	9	Individual Planning Applications	23
Hampshire County Council.....	10	Advising on Sustainable Drainage	
Environment Agency.....	10	Systems in new developments.....	24
Water Companies.....	11	Climate Change.....	25
Highways authorities.....	13	Coastal Change.....	25
District and Borough Councils.....	13	Adoption and Maintenance of SuDS.....	26
Town and Parish Councils.....	13	Ordinary Watercourse Consenting.....	27
Landowners	14	Ordinary watercourse	
Network Rail	14	consenting process.....	27
Flood Action Groups.....	14	5. Recording, Prioritising and	
Hampshire and		Investigating Flood Events Policy	28
Isle of Wight Wildlife Trust.....	14	Flood Investigation process.....	29
2. Catchment Approach Policy	15	6. Working with Multi-Agency	
Factors that affect		Groups Policy	31
catchment behaviour	17	Funding mechanisms.....	33
Factors affecting Hampshire		Potential Hampshire flood	
catchments' flood risk.....	18	mitigation schemes.....	34
Catchment Plan Programme	19	7. Supporting Community Resilience Policy	35
Potential types of flood risk measures.....	19	What will the County Council	
3. Priorities and Risk Management Policy	20	do during a severe flood event?	35
Flood risk in Hampshire	20	Local Resilience Forum.....	36
Prioritisation of Catchment Plans.....	20	National Flood Forum.....	36
Information sharing with other		Glossary	37
Risk Management Authorities.....	21	Appendix 1	38
Surface Water Management		Appendix 2	40
Asset Register.....	21	Appendix 3	41
		Appendix 4	42

Foreword



From working with communities developing new flood action plans, to improving the management of our natural resources, the County Council's ambition is to be at the forefront of flood risk and water management creating **a safer, more resilient Hampshire**. Our priority is to protect people, homes, businesses and key infrastructure by:

- Avoiding risks and managing water resources through effective planning and design;
- Preventing future flooding by reducing or removing existing risks;
- Adapting to flood risk in order to minimise the impact and enable normal life to return as soon as possible;
- Enabling communities to be better prepared to react to flood events and recover more easily; and
- Adopting effective practices that are sustainable and affordable now and in the future.

Since taking on our responsibilities as Lead Local Flood Authority under the Flood and Water Management Act of 2010, and publishing our first Local Flood Risk Management Strategy in 2013, awareness of flood risk, and water management systems has increased. Informed by the experience of the widespread flood events in winter 2013/14, new research and national guidance on the impact of climate change, and the draft national Flood and Coastal Erosion Risk Management Strategy, our approach to flood and water management is evolving.

Building on the knowledge and understanding that we have gained, this document updates our Local Flood Risk Management Strategy and sets out how local flood risks will be managed in the county by the authorities involved. It describes our approach in the form of a vision, a set of seven principles and tailored policies.

We understand that it is only with effective liaison with all those involved in flood and water management including Flood Risk Management Authorities, local communities and residents that long lasting improvements can be achieved. We recognise that we have a leading role in achieving that outcome. Not only

in fulfilling our responsibilities, such as those we have as the Lead Local Flood Authority, Highway Authority and in emergency planning, but in using our influence to encourage others to undertake their roles effectively to achieve real results.

We understand and support the need for development across Hampshire for the benefit of our residents. We will work closely with planning authorities to help places plan and adapt to flooding and coastal change across a range of climate futures, and use our powers to ensure that new development contributes positively to flood risk and water management.

We will continue to seek out new ideas and innovation. We will work with universities, the private and voluntary sectors, and our partners in the field of flood mitigation, Natural Flood Management and other areas to achieve improved outcomes for Hampshire.

We believe that local flood risk management needs to be set within a wider view of flood and water management which is why we've called this document Hampshire's **Local Flood and Water Management Strategy**. The principles set out in our strategy cover our statutory roles along with our aspirations and what we believe to be morally right with regard to flood and water management in Hampshire. This document provides the platform for a broad based approach and will be part of a family of documents that together set out the County Council's strategy and policy for flood risk and water management in its widest sense.



A handwritten signature in black ink, appearing to read 'Rob Humby', written in a cursive style.

Councillor Rob Humby

Executive Member for Transport and Environment
Hampshire County Council

Executive Summary



The County Council has a vision to create a safer, more resilient Hampshire.

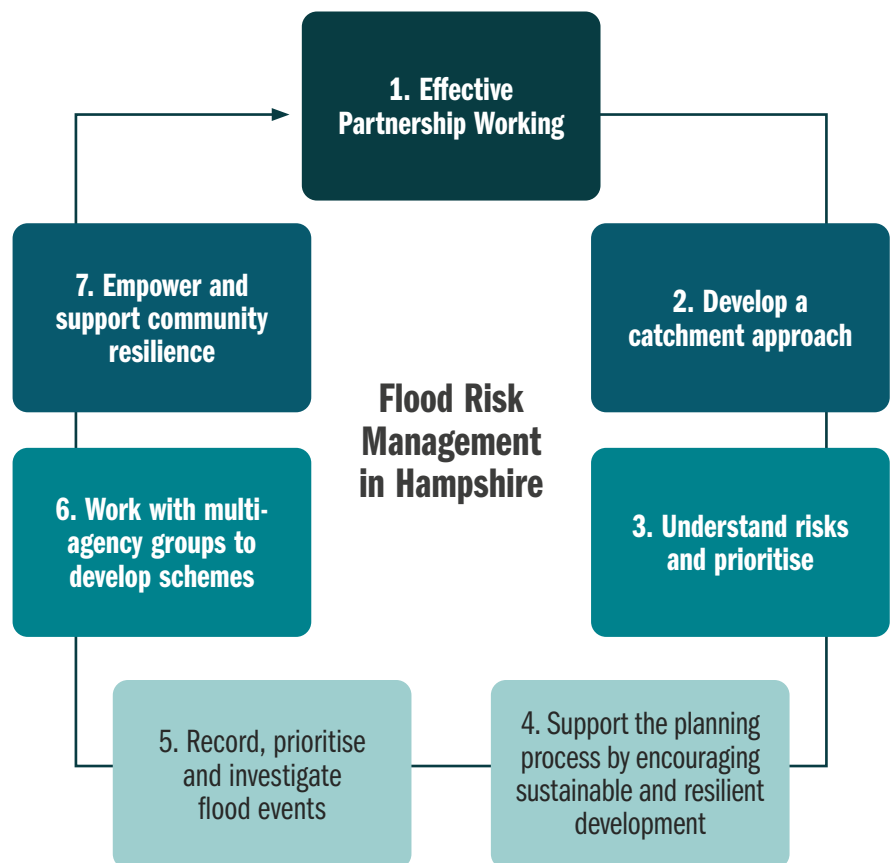
Its priority is to protect people, homes, businesses and key infrastructure by:

- Avoiding risks and managing water resources through effective planning and design;
- Preventing future flooding by reducing or removing existing risks;
- Adapting to flood risk in order to minimise the impact and enable normal life to return as soon as possible;

- Enabling communities to be better prepared to react to flood events and recover more easily; and
- Adopting effective practices that are sustainable and affordable now and in the future.

This flood and water management strategy is about achieving that vision. We have produced a set of **policies** with which robust flood mitigation plans can be managed. By following these policies in a logical step-by-step process Hampshire County Council will, with the support of the Hampshire Strategic Flood Risk Management Partnership Board, bring about effective flood risk management in Hampshire.

Each of these principles has a series of **objectives** beneath it which document tangible, practical steps which Hampshire County Council will undertake in order to achieve its vision for flood risk management in Hampshire. Each of these principles recognises the ongoing effects of climate change and new building development.



Policy 1. To ensure collaboration and successful flood risk management Hampshire County Council will undertake effective partnership working

A number of different bodies, from central government to local councils, have a role in flood risk management and working in partnership is essential to achieving effective action. In order to develop and maintain effective partnership working, maximise opportunities for joint action and ensure respective roles and responsibilities of all risk management authorities are clearly defined, Hampshire County Council will implement the following **actions**:

- 1A.** Lobby central government and the Environment Agency to ensure that Hampshire's specific flood risk challenges are recognised and appropriate national funding mechanisms are in place.
- 1B.** Lead the Hampshire Strategic Flood Risk Management Partnership Board to shape flood risk management strategy with all relevant partners.
- 1C.** Lead the Hampshire Flood Risk Management Technical Delivery Group to coordinate flood alleviation activity across the region.
- 1D.** Improve information available to the public on the Council's website regarding flood risk responsibilities.
- 1E.** Update this strategy as required by the Environment Agency

Policy 2. To better understand the risks associated with the movement of water Hampshire County Council will develop a catchment approach to flood and water management

Managing water in Surface Water Management Plans based on administrative boundaries doesn't work. Water will flow where it wants to naturally. In order to represent flood risk in a more realistic and accurate way taking into account an increase in severe weather events due to climate change, a catchment approach based on geographic river catchment boundaries will be adopted. To achieve this Hampshire County Council will implement the following **actions**:

- 2A.** Develop 18 prioritised river catchment based flood management plans across Hampshire.
- 2B.** Record and monitor flood risk data by river catchment area.
- 2C.** Develop catchment based working groups for flood alleviation schemes.
- 2D.** Ensure a sequential approach to measures to reduce flood risk in the catchment with a preference to natural flood risk management.

Policy 3. To help protect communities that are most vulnerable to flooding, Hampshire County Council will continue to identify risks and develop clear priorities

Some areas and residents of Hampshire are more at risk of flooding than others and we need to concentrate on those communities that are most susceptible. In order to highlight the most vulnerable areas and prioritise resources accordingly Hampshire County Council will implement the following **actions**:

3A. Utilise a risk based approach applying a risk matrix and knowledge of historic flooding in each catchment.

3B. Undertake a prioritisation exercise based on numbers of properties at risk; vulnerability of residents and susceptibility of critical infrastructure along with other socio-economic factors for each of the 18 catchment based flood risk management plans.

3C. Improve flood data collection, recording and sharing to better identify 'at risk' areas.

3D. Use this improved data collection to inform an updated Surface Water Management Asset Register.

Policy 4. To ensure successful and sustainable growth Hampshire County Council will support the planning process by encouraging resilient development

Development of new housing, jobs and infrastructure is vital to improve the prosperity of the county and enhance the standard of living for our residents. The Lead Local Flood Authority is a key consultee in the planning process. In order to guide Local Planning Authorities to approving development which will not increase flood risk, Hampshire County Council will implement the following **actions:**

4A. Encourage the development of robust flood risk management policies within the Local Planning Authorities' Local Plans.

4B. Require developments to utilise Sustainable Drainage Systems (SuDS) and the drainage hierarchy based on current best practice and industry standards for water quality and quantity.

4C. Encourage development which demonstrates an understanding of

environmental sensitivity and provides appropriate mitigation.

4D. Require development to demonstrate a net environmental gain in local flood risk management

4E. Ensure that works to Ordinary Watercourses are only consented where there is no increased flood risk and enforce against unconsented works where appropriate.

4F. Work with the Environment Agency, local planning authorities and other partners to develop the planning skills and capabilities to advise developers on how adaptive approaches should inform strategic local plans, and enable climate resilient places.

Policy 5. To increase knowledge and understanding of flood events Hampshire County Council will record, prioritise and investigate instances of flooding

Having access to a comprehensive data set and detailed information on previous floods in Hampshire is essential for the investigation of flooding events and prioritisation of those areas most at risk. In order to improve flood data capture and provide guidance and advice to those experiencing flood events Hampshire County Council will implement the following **actions:**

5A. Record and respond to all instances of flooding from any source reported to us.

5B. Prioritise flood investigation work according to our published prioritisation schedule.

5C. Liaise with highway authorities to investigate highway flooding.

5D. Undertake formal investigations for significant flooding events.

Policy 6. To reduce flood risk in vulnerable areas Hampshire County Council will work with Multi-Agency Groups to develop Flood Alleviation Schemes

To deliver effective flood alleviation schemes we need to ensure that everyone involved in the process of flood risk and surface water is fully engaged in the process and encouraged to undertake their roles effectively. This requires frequent liaison with a wide variety of organisations. In order to ensure the effective implementation of flood alleviation works across the county, Hampshire County Council will implement the following **actions**:

- 6A.** Continue to work in partnership to deliver the Council's Flood Risk and Coastal Defence Programme.
- 6B.** Encourage the development and implementation of innovative flood alleviation measures and a flexible policy approach from partner organisations.
- 6C.** Work to maximise the available funding from national and local sources including the private sector, and enable investment in schemes to contribute positively to local economic regeneration and sustainable growth.
- 6D.** Continue to attend and contribute to other multi-agency group meetings concerning flood risk across Hampshire and the South of England including Regional Flood and Coastal Committee meetings.
- 6E.** Work with other Risk Management Authorities to set up new multi-agency groups where appropriate for emerging flood alleviation schemes.
- 6F.** Work with coast protection authorities and the Environment Agency on the refresh of shoreline management plans to ensure that

these take account of local circumstances, infrastructure and assets, and that there is full recognition of the costs and benefits of proposed 'adaptive approaches' such as reversal of hold the line policies.

Policy 7. To improve adaptation to and recovery from flood events Hampshire County Council will encourage and support community resilience

Hampshire County Council realises that the task of flood risk management across the county requires ongoing engagement with local communities. In order to ensure flood resilience across the county is maximised, local residents and communities must be engaged in a long-term programme of flood awareness, riparian maintenance and preparedness. To encourage the growth of this engagement Hampshire County Council will implement the following **actions**:

- 7A.** Increase the number of community Flood Action Groups and emergency Flood Action Plans.
- 7B.** Produce guidance in the form of action plans and recommendations from flood investigation reports to inform communities of the best action to take.
- 7C.** Improve online guidance on funding sources and support available from charities such as the National Flood Forum.

1. Effective Partnership Working Policy



To ensure collaboration and successful flood risk management Hampshire County Council will undertake effective partnership working

A number of different bodies, from central government to local councils, have a role in flood risk management and working in partnership is essential to achieving effective action. In order to develop and maintain effective partnership working, maximise opportunities for joint action and ensure respective roles and responsibilities of all risk management authorities are clearly defined, Hampshire County Council will implement the following actions:

1A. Lobby central government and the Environment Agency to ensure that Hampshire's specific flood risk challenges are recognised and appropriate national funding mechanisms are in place.

1B. Lead the Hampshire Strategic Flood Risk Management Partnership Board to shape flood risk management strategy with all relevant partners

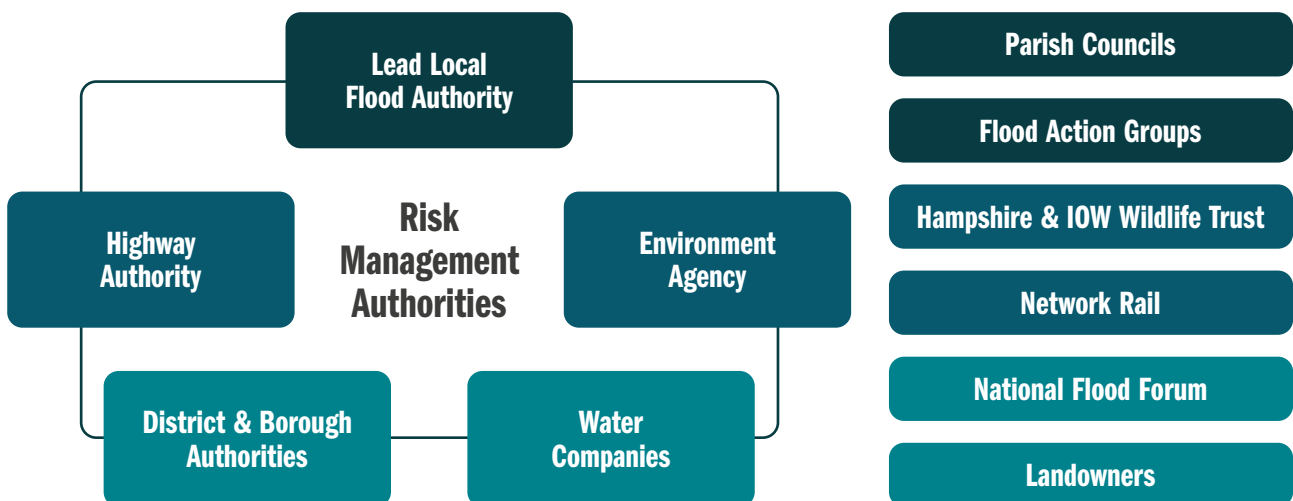
1C. Lead the Hampshire Flood Risk Management Technical Delivery Group to coordinate flood alleviation activity across the region

1D. Improve information available to the public on the Council's website regarding flood risk responsibility.

1E. Update this strategy as required by the Environment Agency

One of the aims of the Flood and Water Management Act of 2010 was to simplify the roles and responsibilities for managing flood risk. Under the act, the County Council was given the role of Lead Local Flood Authority (LLFA). Nevertheless, many organisations are responsible for different aspects of flood and water management.

This information is publicly available on the County Council's [flood risk website](#).



The County Council understands that it can be frustrating for members of the public as it is often not easy to identify which organisation is responsible for which area of flooding. The County Council works closely with all Risk Management Authorities (RMAs) and other organisations in order to simplify the process for Hampshire residents.

The County Council leads the **Hampshire Strategic Flood Risk Partnership Board** as a forum for all the Risk Management Authorities across the county to share ideas, information, and improve resilience by helping to steer the strategic direction of flood and water management in Hampshire.

Hampshire County Council also leads the **Hampshire Flood Risk Technical Delivery Group** which brings together representatives from the organisations named below to support the Partnership Board in implementing the policies and actions outlined in this strategy document, partner organisations' delivery programmes, and to report on general flood and water management issues.

The roles and responsibilities of key partners and stakeholders are set out below.

Responsibilities

Organisation/ group	Risk Management Authority	Flood Risk role
Lead Local Flood Authority	✓	Managing Local Flood Risk Sources (Surface water, groundwater flooding and ordinary watercourses).
Environment Agency	✓	Responsible for managing flood risk from main rivers and the sea and has a strategic overview of all sources of flooding and coastal erosion.
Water Companies	✓	They are responsible for the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure.
Highway Authorities	✓	Managing the Highway drainage network
District and Borough Councils	✓	Operation and maintenance of some of existing sea defences. Have powers to undertake works on ordinary watercourses. Riparian owners
Landowners		Maintaining watercourses on their land under their riparian responsibilities
Parish Councils		Riparian owners and Identify local risks and preparation of flood action plans

Hampshire County Council

As a Lead Local Flood Authority (LLFA), Hampshire County Council has a responsibility to manage flood risk from surface water and groundwater. In addition, it has additional flood risk management functions under other legislation. The relevant acts and orders are listed below:

- **Flood and Water Management Act (FWM) 2010**
- **The Town and Country Planning (Development Management Procedure) (England) Order 2015**
- **Land Drainage Act as amended by the FWM Act 2010**

Under this legislation Hampshire County Council, as Lead Local Flood Authority for Hampshire, is required to:

- Prepare and maintain a strategy for local flood risk management in Hampshire
- Act as a coordinating body for views and activity of other local flood risk management authorities and communities
- Maintain a register of flood risk management assets
- Investigate significant local flooding incidents and publish the results of such investigations
- Comment on, as part of the planning process, the design of Sustainable Drainage Systems (SuDS) for all major planning applications in Hampshire

- Issue consents for altering, removing or replacing certain structures or features on ordinary watercourses

For more detailed information on the responsibilities of LLFAs please [click here](#).

The County Council will regularly review and update its **online guidance** regarding roles and responsibilities to ensure that Hampshire residents have access to the clearest and most relevant information at all times.

Hampshire County Council also has a duty as a 'competent authority' under the Conservation of Habitats and Species Regulations 2017 to have regard to the EC Habitats Directive when exercising our responsibility to manage flood risk. The County Council must ensure that flood risk management works do not lead to a 'likely significant effect' on any sites designated under the EC Habitats Directive.

Environment Agency

The Environment Agency (EA) has a strategic overview of all sources of flooding and coastal erosion. It also plans and implements flood and coastal erosion risk management activities on main rivers and the coast; regulates reservoir safety and works in partnership with the Met Office to provide flood forecasts and warnings.

All main rivers are listed on the [EA website](#). Hampshire main rivers tend to be larger watercourses such as the River Test and Itchen, however, there are a number of smaller watercourses which are also designated as main river.

The EA has regional offices across the UK managing flood risk at a more local level. There



are three of these covering Hampshire as shown on the plan above.

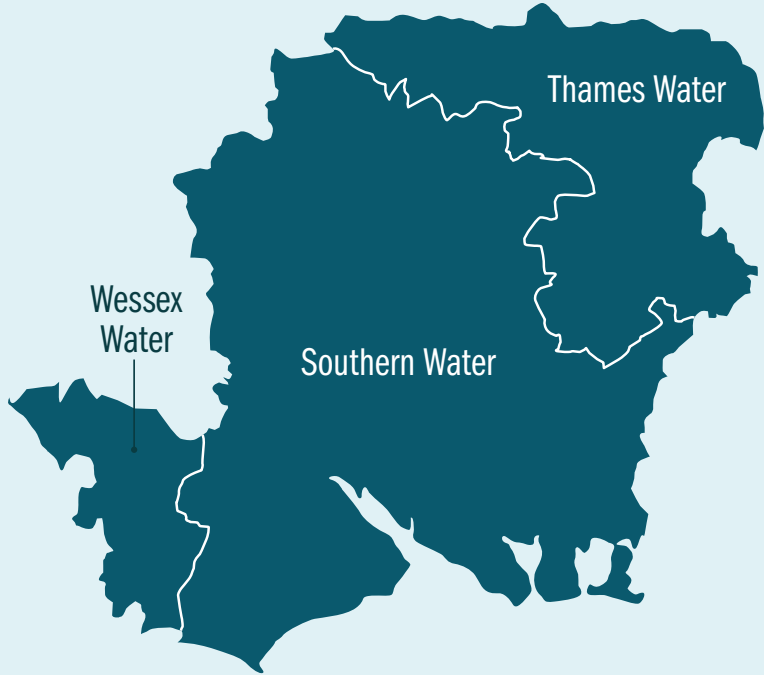
Water Companies

Water companies are responsible for managing the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure. Their main roles are to:

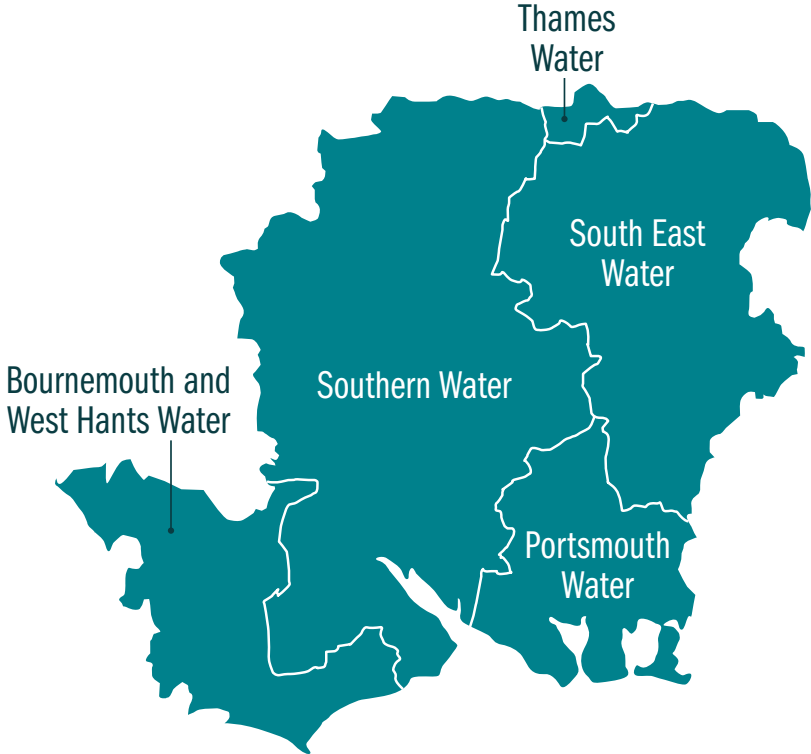
- Ensure systems have the appropriate level of resilience to flooding and maintain essential services during emergencies.
- Maintain and manage water supply and sewerage systems to reduce the risk and impact of flooding and pollution.
- Provide advice to LLFAs, developers and landowners on how water and sewerage company assets impact on local flood risk.
- Work with the Environment Agency, LLFAs and local councils to coordinate management of water and sewerage system works with other flood risk management schemes.
- Have regard to Flood and Coastal Erosion Risk Management (FCERM) plans in their own plans and work.

There are a number of different water providers and sewerage companies across Hampshire which generally align to the boundaries of the River Basin Districts.

Sewerage Providers



Mains Water Providers



Highways authorities

Highways England maintain, operate and improve all motorways and major A roads in England. **Hampshire Highways** is the Highway Authority for all other adopted roads in Hampshire outside of Southampton and Portsmouth.

The County Council has the lead responsibility for providing and managing highway drainage of its highways under **the Highways Act 1980**. It is responsible for a very small proportion of drainage ditches which have been constructed by the Highway Authority to drain the highway alone.

Hampshire County Council will co-ordinate drainage works and maintenance to ensure that the worst flood risk areas on the highway are targeted first, and that measures to improve the resilience of roads to flooding from all sources are integrated into highway infrastructure schemes wherever possible. Often flooding incidents are as a result of non-highway water causing the highway drainage to exceed its capacity. In these instances, the LLFA will press for potential mitigation works to be identified and implemented.

The County Council recognises the particular importance of the highway drainage system in those areas most at risk of flooding. We will therefore continue to monitor these locations to ensure that the most effective maintenance regime is in operation to provide the optimum resilience.

District and Borough Councils

Historically, district and borough councils were designated as 'Local Drainage Authorities' under the Land Drainage Act 1991. They had a number of permissive powers for mitigation of flooding from ordinary watercourses and

responsibilities to manage flood risk as set out in planning legislation. The FWM Act 2010 transferred many of these powers to the LLFA. However, district councils may still undertake flood related works on Ordinary Watercourses, groundwater or surface water schemes.

District and Borough Councils are a key partner in flood and water management as a result of the local knowledge they hold and the contacts they have with local communities. They may also be riparian landowners.

Town and Parish Councils

Town and Parish Councils play an important role in the local management of flood risk, especially in the rural areas of Hampshire. They can provide vital support to residents when setting up community Flood Action Groups (FAGs), preparing community Flood Action Plans (FAPs), gathering data on flood incidents, and assisting in fund raising.

It is important for Town and Parish Councils to be aware of the riparian responsibilities of their residents and to help to communicate this message to them in order that the drainage networks, particularly in small rural communities, continue to operate effectively.

Many Parishes and Town Councils take part in local arrangements in order to undertake riparian responsibilities, for example the parish lengthsman scheme. They provide a way in which the delivery of specific work that is important to the Parish and Town Council, and the local community can be carried out. The lengthsman carries out simple and straightforward tasks such as vegetation clearance, and sign cleaning on highway and parish areas. Low risk maintenance operations to clear ditches and other drainage features is a valued part of the service. The County

Council will continue to support the use of lengthsman wherever possible, and work with Parish and Town Councils to highlight the need for maintenance activity beneficial to flood and water management.

Landowners

Under Common Law, landowners have a duty to accept water from higher ground and to maintain flow paths through their property. Landowners adjoining a ditch are responsible for maintaining that ditch as part of their riparian responsibilities.

The owners of land adjoining a highway also have a duty to maintain roadside ditches to prevent them causing a nuisance to road users.

Hampshire County Council has produced a **guidance leaflet** for riparian owners which explains their rights and responsibilities.

Network Rail

Railway infrastructure can be especially prone to flooding incidents. For example, in cuttings or tunnels which are lower than the surrounding land. Accordingly, the company has processes in place to mitigate the effects of flooding, such as the deployment of barriers to prevent water ingress.

Hampshire County Council works closely with Network Rail to ensure that any works that are undertaken for flood risk management across Hampshire will have no negative effects on the strategic rail network.

Flood Action Groups

Local Flood Action Groups are invaluable in identifying areas at risk in the community. Anecdotal information and neighbourhood knowledge can be hugely significant in the first stages of a flood investigation.

Flood Action Groups are also vital, in co-ordination with Parish Councils, when communicating flood risk issues to local residents and businesses, and encouraging community led flood risk initiatives which have resulted from action plans and investigations.

Hampshire and Isle of Wight Wildlife Trust

The Hampshire and Isle of Wight Wildlife Trust (HIWWT), Wessex Chalk Stream and Rivers Trust, along with Catchment Partnerships are important partners in flood risk and water management. Hampshire County Council recognises that, with careful management, flood mitigation methods can also be beneficial to biodiversity and habitat creation.

2. Catchment Approach Policy



To better understand the risk of water movement Hampshire County Council will develop a catchment approach

Managing water in Surface Water Management Plans based on administrative boundaries doesn't work. Water will flow where it wants to naturally. In order to represent multi-source flood risk in a more realistic and accurate way, a catchment approach based on geographic river catchment boundaries will be adopted. To achieve this Hampshire County Council will implement the following **actions**:

2A. Develop 18 prioritised river catchment-based flood management plans across Hampshire.

2B. Record and monitor flood risk data by river catchment area.

2C. Develop catchment based working groups for flood alleviation schemes.

2D. Ensure a sequential approach to measures to reduce flood risk in the catchment and encourage the wider use of natural flood risk management techniques.

A flood risk management approach based upon the river catchment area, known as a **catchment approach**, rather than one based on administrative boundaries, enables a more integrated multi-agency response, in active partnership with local communities. It recognises that measures in one part of the catchment could affect flood risk within another part. Many of Hampshire's rivers, including the internationally important River Test and River Itchen, rise and fall within the county. This gives

us a unique opportunity to develop a holistic system management approach.

The catchment approach allows prioritisation of flood risk mitigation within a catchment whilst appreciating that a scheme in one location may impact on all areas in that catchment. The approach also recognises that flooding is rarely from one single source, it is usually multi-sourced and therefore the responsibility of multiple agencies.

Aims of the Catchment Flood Risk Management Approach

- Ensure a stepped approach to interventions and measures to reduce flood risk in the catchment with preference for natural flood risk management, recognising that one single solution is not appropriate in all situations.
- Work more effectively with partners within the catchment area, understanding each organisation's role and sharing responsibility to develop appropriate flood risk mitigation.
- Empower local residents and communities to take action to mitigate flooding

It is recognised that the majority of significant flooding incidents are due to a mix of several sources of flooding including groundwater, surface water (pluvial), river (fluvial), coastal and sewer flooding. The catchment approach will take all these sources into account when assessing flood risk.

Catchment areas

- | | |
|-------------------|--------------------------|
| 1 Loddon East | 12 Rother |
| 2 Loddon West | 13 Enbourne |
| 3 Meon/Wallington | 14 Avon |
| 4 Itchen | 15 Avon Water/New Milton |
| 5 Test (Lower) | 16 Wey Eastern |
| 6 Test (Upper) | 17 Lymington |
| 7 Lavant | 18 Beaulieu |
| 8 Hamble | |
| 9 Wey Western | |
| 10 Test (middle) | |
| 11 Monks Brook | |



Hampshire County Council's flood recording systems are set up to record incidents on a catchment basis in order for investigations to take into consideration effects encountered elsewhere in the catchment.

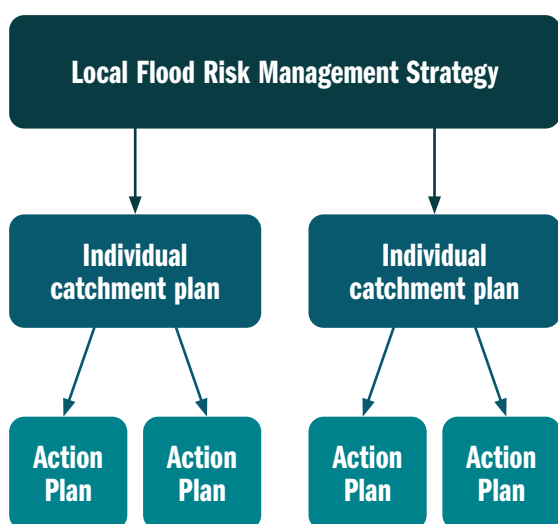
Across all its areas of responsibility, and in keeping with a catchment based approach, Hampshire County Council will undertake all of its duties in accordance with the drainage hierarchy which states that:

The aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable:

1. into the ground (infiltration);
2. to a surface water body;
3. to a surface water sewer, highway drain, or another drainage system;
3. to a combined sewer.

<https://www.gov.uk/guidance/flood-risk-and-coastal-change>

Catchment Flood Risk Management plans, known as **Catchment Plans**, identify areas that are at risk of flooding and that have experienced flooding in recent events. They also seek to understand how and why the catchment floods, so that communities and flood risk management partners can co-ordinate flood risk reduction activities. Individual Action Plans form part of the Catchment Plan and sit below the overarching strategy. The **Action Plans** for the catchment develop short, medium, and long term approaches to managing flood risk.



Factors that affect catchment behaviour

The catchment area is the most significant factor in determining the amount or likelihood of flooding experienced by any community. General factors that determine how a catchment might respond to flooding include:

Topography plays an important part in how fast runoff will reach a river. Rain that falls in steep areas will reach the primary river in the drainage basin faster than flat or lightly sloping areas.

Shape will contribute to the speed with which the runoff reaches a river. A long thin catchment will take longer to drain than a circular catchment.

Size will help determine the amount of water reaching the river, as the larger the catchment the greater the potential for flooding.

Geology and Soil type will help determine how much water reaches the river. Certain soil types such as sand are very free-draining, and rainfall is likely to be absorbed easily into the ground. However, soils containing clay can be almost impermeable and rainfall will run off and contribute to flood volumes.

Land use and management contributes to the volume and rate of water reaching the river. For example, rainfall on impermeable surfaces such as roofs, pavements, and roads will be collected by rivers with almost no absorption into the groundwater.

This approach recognises the inter-connectedness of the natural environment, and that actions in one part of the catchment may have implications for other parts of the catchment. The County Council will seek to implement the catchment-based approach in a way that will conserve the needs of the environment.

Factors affecting Hampshire catchments' flood risk

The geology of a county has a significant effect on its risk of flooding. Impermeable bedrock can lead to flash floods from surface water, whilst chalk bedrock is absorbent and delays this, although, with persistent rainfall, this can lead to flooding caused by groundwater.

Hampshire's geology is shown below and is factored into all flood risk mitigation schemes undertaken by the County Council.








Hampshire is bordered to the south by the Solent, and the county is drained by 18 separate river catchments. To the north and east, the rivers Kennet, Loddon, Wey, and Addleston Bourne drain towards the Thames.

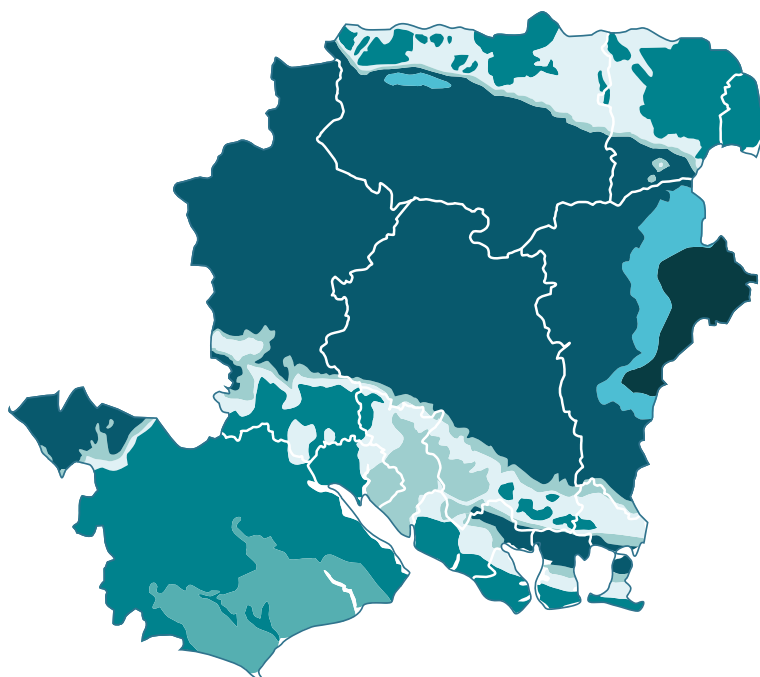
Much of central Hampshire is dominated by the catchments of the Test and Itchen, both high quality chalk rivers which, along with the Hamble and Meon, drain in a southerly direction to Southampton Water and the Solent.

In the west of the county, the Avon drains to the west and the Lymington River and Beaulieu River drain the New Forest towards the Solent and Southampton Water. Whilst towards the south and east, the River Wallington drains south to Portsmouth Harbour and the Rother flows east to join the Arun.

The different characteristics of these rivers and catchments influence the flood risk of the surrounding areas, with slow responding groundwater dominated catchments (such as the Test and Itchen) more prone to groundwater flooding, whilst quick responding catchments may be more prone to river or surface water flooding.

Flooding from the sea is the predominant source of flood risk to Hampshire's most populated areas on low lying coastlines in Portsmouth, Southampton, Gosport, Havant, Hayling Island, Fareham, Eastleigh and the New Forest.

-  Barton, Bracklesham and Bagshot Beds
-  Chalk
-  Hampstead Beds and Bembridge Marls
-  London Clay
-  Lower Greensand
-  Oldhaven, Blackheath, Woolwich, and Reading and Thanet beds
-  Upper Greensand and Gault



Catchment Plan Programme

A programme of 18 catchment plans is being prepared based upon the risk factors discussed above. Each catchment plan will:

- Establish the causes and sources of flood risk within the catchment area, and identify the geographic areas, or priority groups, that are at the highest risk of flooding;
- Assess the potential impact of flooding to the properties and strategic infrastructure assets located within the priority groups; and
- Produce high level Action Plans and guidance specific to the priority areas that outline measures to improve the catchment’s resilience against flooding both now and in the future.

For further information please see [Appendix 1](#).

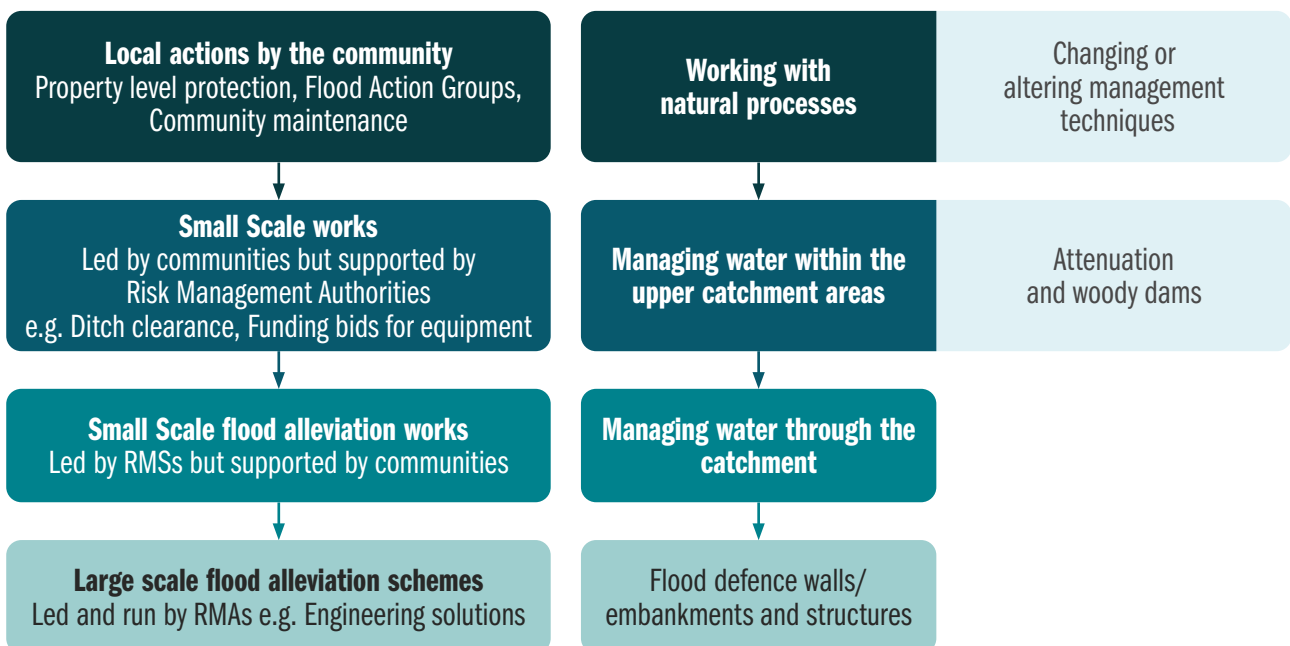
The catchment plans are being undertaken in priority order with those identified as being at highest risk being prepared first. Although the programme is built primarily on a risk basis, it is important to note that there may be individual

locations within lower prioritised catchment areas where investigations may need to be undertaken. The process of prioritising the catchment plans is outlined in Chapter 3. Understand Priorities and Risks.

Potential types of flood risk measures

There is a suite of measures and actions that can be included within any action plan. These can include ‘soft’ actions, such as improved processes and information sharing between organisations and community engagement, as well as ‘harder’ engineering solutions. The County Council will ensure a stepped approach to flood risk management with a preference for more natural methods above harder engineering measures following the **natural flood management hierarchy** below.

The County Council will take a tiered approach by considering lower cost simpler measures that can be undertaken by local groups before other measures. The tiered approach allows a range of measures to be looked at within a community, and the development of a short, medium and long term approach to managing flood risk.



3. Priorities and Risk Management Policy



To help communities that are most vulnerable to flooding, Hampshire County Council will continue to improve our understanding of priorities and risks

Some areas and residents of Hampshire are more at risk of flooding than others and we need to concentrate on those communities that are most susceptible. In order to highlight the most vulnerable areas and prioritise resources accordingly Hampshire County Council will implement the following **actions**:

- 3A.** Utilise a risk-based approach applying a risk matrix and knowledge of historic flooding in each catchment.
- 3B.** Undertake a prioritisation exercise based on numbers of properties at risk; vulnerability of residents and other socio-economic factors for each of the 18 catchment based flood risk management plans.
- 3C.** Improve flood data collection, recording and sharing to better identify ‘at risk’ areas.
- 3D.** Use this improved data collection to inform an updated Flood Risk Asset Register.

Flood risk in Hampshire

Flooding in Hampshire can occur for a variety of reasons due to the characteristics of the county which include an extensive coastline, large river network and chalk (and other) aquifers. This strategic document focuses on local flooding which is caused by surface water, groundwater and flooding from ordinary watercourses. However, as the most severe floods are often

caused by the interaction of different sources of flooding it is important that we consider other types of flooding and work with those organisations responsible for its management.

Risk

In general, risk is described as the likelihood of an event occurring, multiplied by the severity of the consequence of the event. In a flooding event this would amount to:

Frequency of flooding	5	Medium	High	High	Extreme	Extreme
	4	Medium	Medium	High	High	Extreme
	3	Low	Medium	Medium	High	High
	2	Low	Low	Medium	Medium	High
	1	Low	Low	Low	Medium	Medium
		1	2	3	4	5
		Consequence on flooding				

Prioritisation of Catchment Plans

The County Council has developed a tool to identify and prioritise those catchment areas most at risk from flooding within Hampshire. The tool provides a robust, evidence-based approach to guide the prioritisation of individual catchments so that plans for those areas at highest risk can

be prepared first. The prioritisation process will support the County Council's strategic investment decisions and inform its discussions with key stakeholders. The prioritisation was undertaken according to the following criteria:

- Properties at risk of flooding based on available modelling and mapping;
- Incidents of historic flooding;
- Indices of deprivation;
- Risk to Hampshire's strategic road network and the potential cost of repair; and
- Damages incurred to properties, including numbers of properties and value of damages incurred.

Although all sources of flooding were considered, greater weight has been placed on predicted risk from surface water and groundwater flooding, as these are Hampshire County Council's areas of responsibility. However, the Council is committed to working with all risk management authorities across the catchments to reduce risk from all sources of flooding.

This work has allowed the County Council to understand the relative risk within these individual catchments and has been used to develop the Catchment Plan Programme as detailed in [Appendix 2](#).

Information sharing with other Risk Management Authorities

The County Council will work with other Risk Management Authorities across Hampshire to work towards the most effective and

widespread method for capturing flooding data. This will include information from the Environment Agency, District and Borough Councils and local community sources.

In this way, data can be used to identify 'at risk' areas and pinpoint communities which would benefit from flood alleviation activity.

The majority of this information will be shared with the public through the County Council's Surface Water Management Asset Register.

Manage Surface Water Management Asset Register

The Flood and Water Management Act requires the LLFA to create and maintain a register of all structures and features that are anticipated to have an effect on flood risk in the area. This is known as a 'Surface Water Management Asset Register'. The County Council has prepared such a register that is available on our [website](#).

At present the register contains only basic information about the structures owned by Hampshire County Council and deemed to have an impact on flood risk. The County Council will also:

Asset Register Policy

1. Register assets that have been specifically built for flood alleviation purposes (such as Hambledon Flood Alleviation Scheme); and
2. Consider the registration of assets that have a significant impact on flood risk that were not built to specifically mitigate flood risk.

The register will ensure that potential changes to any of the listed structures would have to be carefully managed so that flood risk is not increased.

4. Sustainable and Resilient Development Policy



To ensure successful and sustainable growth Hampshire County Council will support the planning process by encouraging resilient development

Development of new housing, jobs and infrastructure is vital to improve the prosperity of the county and enhance the standard of living for our residents. The Lead Local Flood Authority is a key consultee in the planning process. In order to guide Local Planning Authorities to approving development which will not increase flood risk, Hampshire County Council will implement the following **actions**:

4A. Encourage the development of robust flood risk management policies within the Local Planning Authorities' Local Plans, and in Neighbourhood Plans.

4B. Require developments to utilise Sustainable Drainage Systems (SuDS) and the drainage hierarchy based on current best practice and industry standards for water quality and quantity

4C. Encourage development which demonstrates an understanding of environmental sensitivity and provides appropriate mitigation

4D. Require development to demonstrate a net environmental gain in local flood risk management

4E. Ensure that works to ordinary watercourses are only consented where there is no increased flood risk and enforce against unconsented works where appropriate

4F. Work with the Environment Agency, local planning authorities and other partners to develop the planning skills and capabilities to advise developers on how adaptive approaches should inform strategic local plans and enable climate resilient places.

4G. Ensure that the effects of climate change on flood risk, including potential coastal erosion, are taken into account during the planning process

As the Lead Local Flood Authority, Hampshire County Council has a role within the development planning process in relation to surface water drainage for new developments. Our regulatory role for consenting works on ordinary watercourses is also linked to development where works are proposed to these.

Our role within the plan making process

As the LLFA, Hampshire County Council is consulted on and responds to Local Plans that are prepared by the Local Planning Authorities, and Neighbourhood Plans. We will provide comments on:

- The adequacy of local planning policies to support our wider flood risk role as the LLFA
- The use of baseline data and information to assess flood risk

Throughout this process we will encourage the adoption of policies in local plans which require the highest standards of SuDS, improve

surface water management where possible, and complement our overall flood risk strategy and catchment plans.

Individual Planning Applications

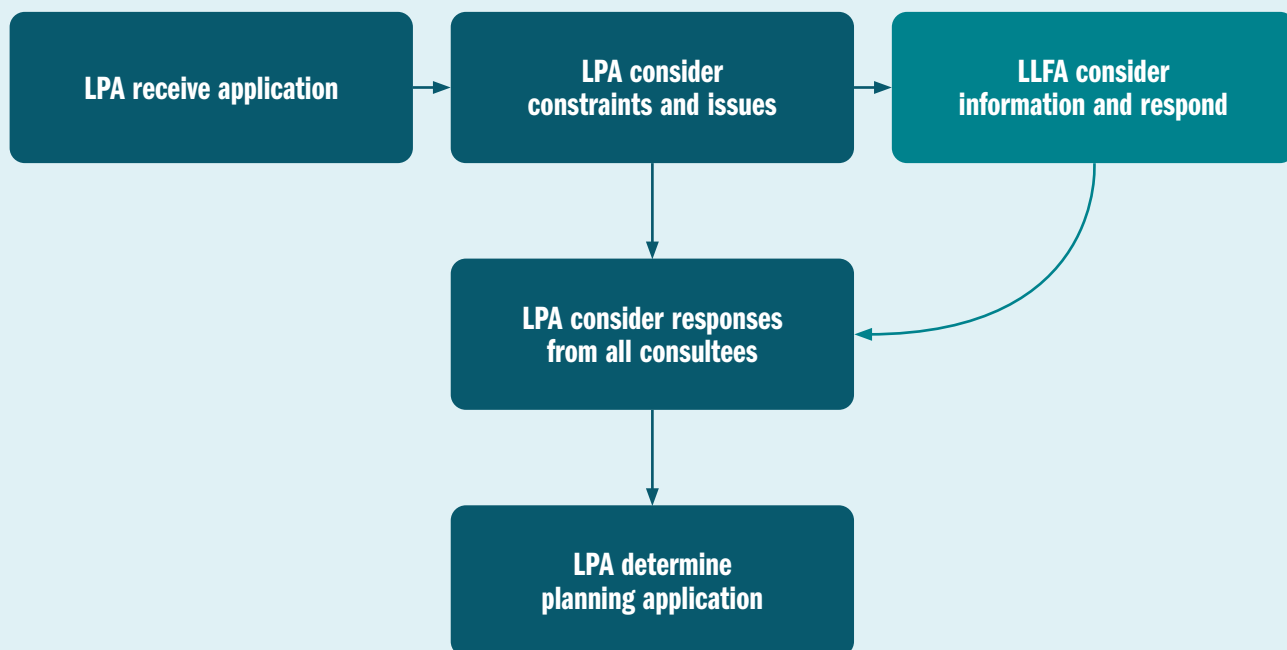
Under the Town and Country Planning (Development Management Procedure) (England) Order 2015, the Lead Local Flood Authority is the statutory consultee on surface water drainage for major developments.

For a full definition of ‘major planning application’, please visit the Government’s Legislation [website](#).

The County Council has a statutory time frame of 21 days to respond to each of these consultations.

Please see below for the County Council’s **process for responding to Local Planning Authorities (LPA) on major planning applications.**

Further information on how we respond to planning consultations can be found on our [website](#).



Advising on Sustainable Drainage Systems in new developments

Traditionally surface water management has been undertaken by providing drainage features that aim to get the water away from the site as quickly as possible. This approach has often led to increased flood risk further downstream. In addition, drainage features were often “out of sight”, not always of sufficient size or maintained appropriately leading to increased flood risk.

Source control is where surface water is managed as close to the source as possible, mimicking the natural process by intercepting and holding back water. This is now considered the most appropriate method to mitigate flooding and potential water quality issues. Best practice has identified a hierarchy of drainage options:

- into the ground (infiltration)
- to a surface water body
- to a surface water sewer, highway drain, or another drainage system
- to a combined sewer

SuDS Policy 1

Underlying these options is the requirement to ensure that, post development, **no greater volume of surface water leaves the site and/or no surface water leaves the site at a faster rate** than occurred pre-development or, preferably, the discharge rate is limited to greenfield runoff rates. The County Council will object to planning developments if the net effect on the flood risk in an area is too great.

Hampshire County Council will follow best practice requirements when responding to Surface Water Management consultations by:

- Promoting and encouraging the use of surface water SuDS techniques above the use of underground pipes or storage.
- Ensuring that post development run off rates and volumes are equal to or less than pre- development amounts.
- Ensuring sufficient attenuation of surface water flood water, up to a 1 in 100 year event plus the appropriate extra percentage for expected climate change is provided.
- Ensuring that the drainage system consider the required water quality and is designed appropriately for the development use and the associated discharge point, including the wider sensitivity of those locations.
- Ensuring Local Planning Authorities are aware of historic flood events in the area including surface water and groundwater events
- Ensuring that responsibility and processes for ongoing maintenance of SuDS are considered in the planning process

For further information on designing for SuDS, please see [Appendix 3](#).

Climate Change

Working with communities across Hampshire, the County Council has produced a **Climate Change Strategy** in order to develop and promote a focus on embedding climate resilience and mitigation across the Council's key policies and sectors. It is recognised that increased risk of flooding and coastal erosion are significant effects of increases in severe rainfall and storms caused by our changing climate.

Hampshire County Council, as LLFA for Hampshire, accounts for Climate Change during the planning process by uplifting drainage requirements in line with the Environment Agency's **Climate Change Allowances**. However, as stated in action 4G, the County Council will undertake further steps to account for the effects of increased severe weather events, on a case by case basis, during the planning process where deemed necessary.

This Local Flood and Water Management Strategy has been written in collaboration with Climate change experts within the Council and our partner organisations to ensure that all actions will be undertaken with full acknowledgement of the predicted challenges and changes caused by Climate Change.

Coastal Change

As discussed in the responsibility section of this document (page 10), the responsibility for the management of coastal erosion and coastal flooding lies with the Environment agency and the relevant planning authority. **Guidance for planning authorities** on how to address the risks associated coastal change in the planning process have been published by the Government.

The County Council, in line with its holistic view of flood risk will ensure continued liaison with partner Risk Management Authorities through the Hampshire Flood Risk Technical Delivery Group, Coastal Partnerships and Regional Flood and Coastal Committees. This will ensure the Council's input into Shoreline Management Plans and that the effects of coastal change are accounted for in wider water management planning.

Adoption and Maintenance of SuDS

It is important for developers to provide evidence that those who will be **responsible for adopting and maintaining the SuDS features have been identified and approached to understand their requirements** for these features. They may have their own requirements in relation to design and maintenance that will need to be included within any design. Adopting and maintaining authorities within Hampshire can vary between sites, but can comprise a combination of the following:

- Water Companies
- Inset Companies
- Private Management Companies
- Parish Councils
- District or Borough Councils
- Hampshire County Council

SuDS Policy 2

Hampshire County Council will continue to encourage Local Planning Authorities to ensure that a robust and ongoing maintenance regime and formal adoption process is secured through the granting of planning permission, including the use of Section 106 agreements where necessary

As the Lead Local Flood Authority, the County Council does not adopt or maintain SuDS features within new developments. As the Highway Authority, Hampshire County Council has information on what we will adopt and maintain in relation to SuDS and surface water drainage. This is available [here](#).

Ordinary Watercourse Consenting

The Lead Local Flood Authority is responsible for consenting certain works on ordinary watercourses. These works can include culverting, infilling and diversions of these watercourses. For further information on legislation, please see **Land Drainage Act as amended by the Flood and Water Management Act 2010**, specifically **section 23**.

OWC Policy

Consent will not normally be given to build a pipe, culvert or other underground structure that a watercourse can flow through. As these are unseen and difficult to access for maintenance, blockages can quickly develop with a consequent increase in flood risk and damage to the environment.

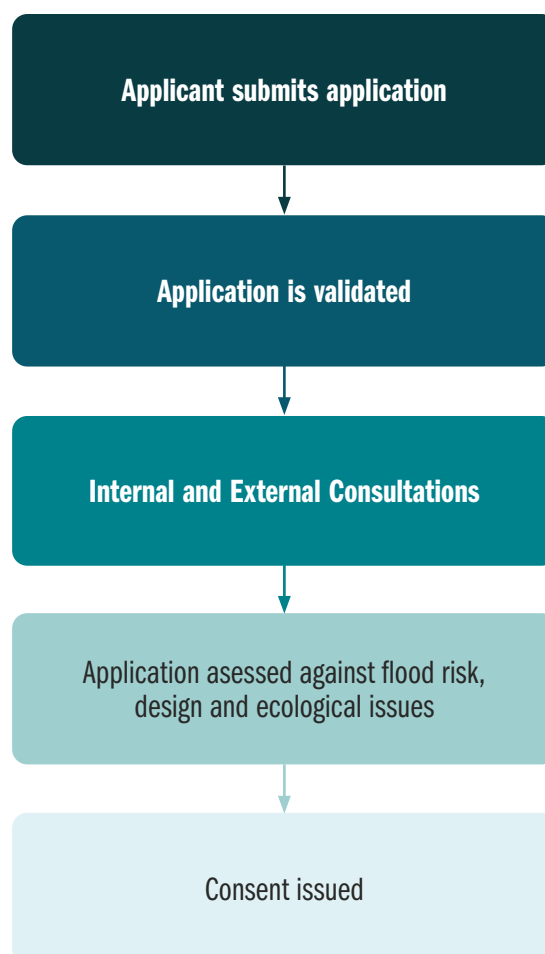
Hampshire County Council will follow best practice when issuing or refusing ordinary watercourse land drainage consents by:

- Encouraging Local Planning Authorities to notify developers when granting planning permission for development that ordinary watercourse consent may also be required prior to development commencing.
- Ensuring ordinary watercourse consent is only granted for those works which will not increase flood risk.
- Working with riparian owners to plan for and take appropriate action.
- Encouraging the use of natural flood measures and the application of the natural flood management hierarchy.

- Ensuring appropriate action is taken against unconsented works, where they pose significant flood risk.
- Consider the effects on statutory environmental designations and wider biodiversity as part of the consenting process.
- Undertaking appropriate consultation with others as required.

Ordinary watercourse consenting process

The diagram below shows how an application for ordinary watercourse land drainage consent will be dealt with by Hampshire County Council within the 2 month statutory timeframe.



5. Recording, Prioritising and Investigating Flood Events Policy



To increase knowledge and understanding of flood events Hampshire County Council will record, prioritise and investigate instances of flooding

Having access to a comprehensive data set and detailed information on previous floods in Hampshire is essential for the investigation of flooding events and prioritisation of those areas most at risk. In order to improve flood data capture and provide guidance and advice to those experiencing flood events Hampshire County Council will implement the following **actions**:

5A. Record and respond to all instances of flooding from any source reported to us.

5B. Prioritise flood investigation work according to our published prioritisation schedule.

5C. Liaise with the Highway Authority to investigate highway flooding.

5D. Undertake formal investigations for significant flooding events.

As Lead Local Flood Authority (LLFA), Hampshire County Council has a duty to investigate **significant** flood events to the extent that the LLFA deem is appropriate. These are formal investigations under Section 19 of the FWM Act 2010. Reports on these investigations will be published on the **Hampshire County Council's flooding website**. The following **Flood Investigations Statement** sets out what we will investigate. How we propose to undertake investigations is also explained below

Flood Investigations Statement

Hampshire County Council, as Lead Local Flood Authority for Hampshire, will investigate '**significant**' flooding in accordance with the requirements of Section 19 of the Flood and Water Management Act 2010.

Significant flooding is defined as:

- Flooding that affects 20 or more properties internally in one flood event within the same location OR:
- Flooding that affects significant lengths of the highway and lasts for a period of 3 hours from the onset of flooding.

Flood Investigation process

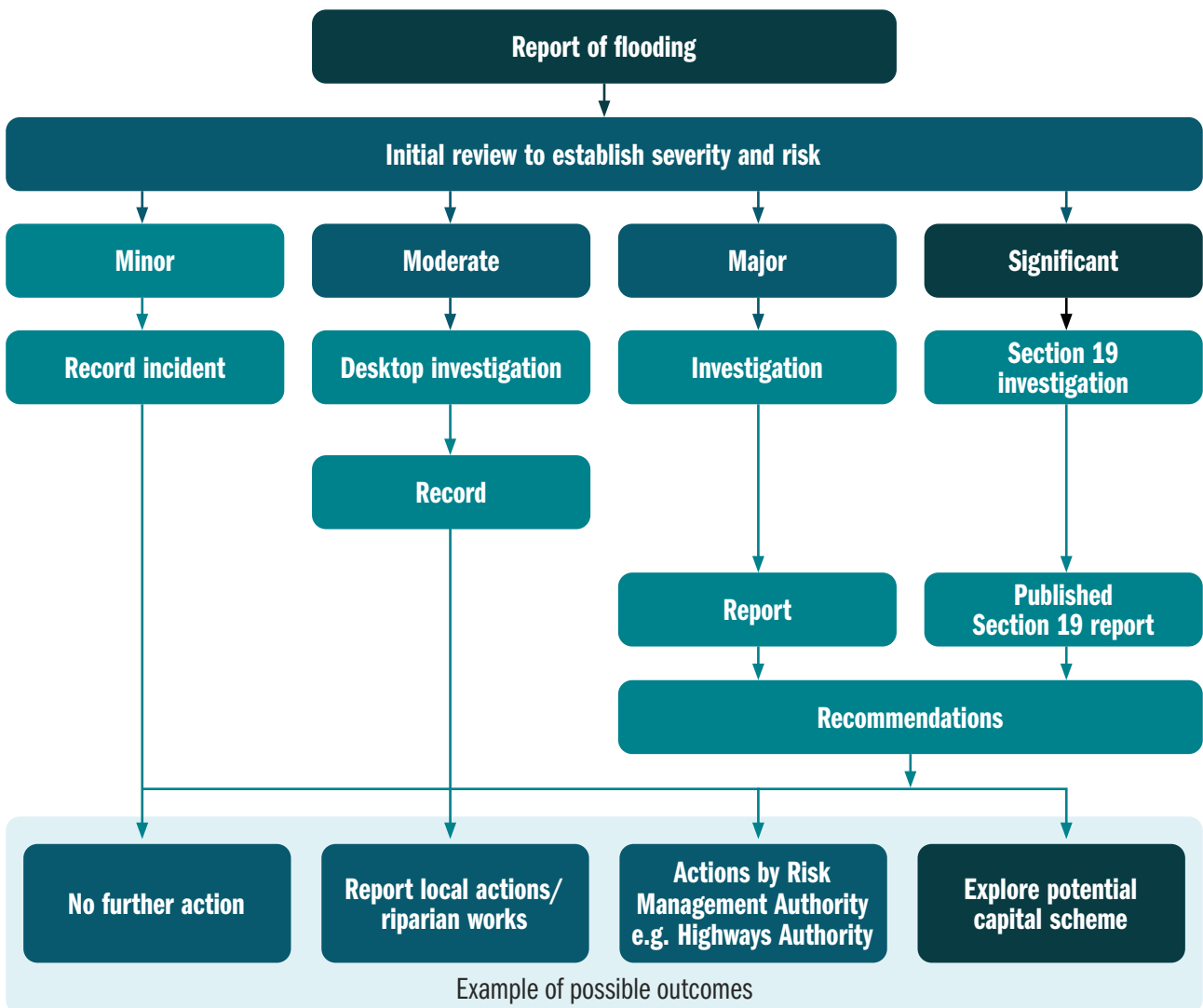
The key purpose of investigating flooding is to determine the cause and identify steps that could be taken to help prevent a recurrence or reduce the impact of a similar event in future.

The LLFA logs every report of flooding that is received and an initial review of information is undertaken. More information will be gathered from the reporter where necessary. Those Risk Management Authorities (RMAs) with responsibility for the drainage system, or elements of it involved in the flood incident will be expected to progress the investigation and identify potential mitigation measures. For example, a blocked foul water sewer would be the responsibility of the relevant water company.

The process will also consider issues relating to water quality, flood risk downstream and ecological issues from any potential mitigation measures and will pay due regard to relevant environmental legislation, including the Habitats and Species Regulations (2017).

As the LLFA, we will work with other RMAs to implement the mitigation measures identified where appropriate and possible, and as informed by the prioritisation of catchment areas.

The following process will be followed for flood investigations:



Although not all flooding will be the subject of a formal investigation under Section 19 of the Flood and Water Management Act, Hampshire County Council will still investigate each incident to the extent necessary.

For highway flooding, we will work with Hampshire Highways or Highways England to investigate the incident. Other sites will be logged and assessed so that the flood incidents with the greatest impacts on people, homes, businesses and key infrastructure are investigated first. Investigation does not infer that works will be undertaken to mitigate flood risk, although if the cause is found to be as a result of other parties, they will be notified and we will recommend that mitigation measures are undertaken.

If flooding is as a result of ordinary watercourse issues, we will contact the riparian landowner to instruct them to undertake their riparian responsibilities.

Although the investigation report can identify issues and potential mitigation measures, the FWM Act 2010 does not confer powers on the LLFA to be able to enforce the investigation's conclusions. However, the County Council will work with other RMAs to pursue these with the relevant parties to ensure that appropriate mitigation measures are implemented where possible and to emphasise flood risk priorities within Hampshire.

	Criteria	Likely response
Significant flooding	<ul style="list-style-type: none"> Flood that affects 20 or more properties internally in one flood event within the same location OR Flooding that affects significant lengths of highways that affects access to 20 or more properties and lasts for a period of 3 hours or more 	Formal Flood investigation under Section 19 of the Flood and Water Management Act 2010 undertaken
Major	<ul style="list-style-type: none"> Internal flooding of 1 (domestic or commercial) property which has occurred on more than one occasion OR Internal flooding of 5 or more properties as a result of a single flood event OR A major transport route has been disrupted for more than 10 hours 	Flooding is logged Desktop review Site visit Recorded Report completed
Moderate	<ul style="list-style-type: none"> Flooding that affects more than 1 property internally in 1 flood event OR Flooding that affects highways access to 1 or more properties and lasts for more than 3 hours 	Flooding is logged Desktop review undertaken Recorded
Minor	<ul style="list-style-type: none"> Flooding that affects gardens and open areas with no internal property flooding OR Ponding on small sections of highways 	No investigation

6. Working with Multi-Agency Groups Policy



To reduce flood risk in vulnerable areas Hampshire County Council will work with Multi-Agency Groups to develop Flood Alleviation Schemes

To deliver effective flood and water management schemes we need to ensure that everyone involved in the process of flood risk and surface water management is fully engaged in the process and encouraged to undertake their roles effectively. This requires frequent liaison with a wide variety of organisations. In order to ensure the effective implementation of flood alleviation works across the county, Hampshire County Council will implement the following **actions**:

6A. Continue to work in partnership to deliver the Council's Flood Risk and Coastal Defence Programme and community-led flood alleviation initiatives supported by the Rural Communities Fund.

6B. Encourage the development and implementation of innovative flood and water management measures and a flexible policy approach from partner organisations.

6C. Work to maximise the available funding from national and local sources including the private sector, and enable investment in schemes to contribute positively to local economic regeneration and sustainable growth.

6D. Continue to attend and contribute to other multi-agency group meetings concerning flood risk across Hampshire and the South of England including Regional Flood and Coastal Committee meetings.

6E. Work with other Risk Management Authorities to set up new multi-agency groups where appropriate for flood alleviation schemes.

6F. Work with coast protection authorities and the Environment Agency on the refresh of shoreline management plans to ensure that these take account of local circumstances, infrastructure and assets, and that there is full recognition of the costs and benefits of proposed 'adaptive approaches' such as reversal of hold the line policies.

As Lead Local Flood Authority for Hampshire, the County Council has an ongoing programme of capital flood risk schemes as well as more local works. With all of these projects, the County Council works with other organisations at a national, regional and local scale. These multi-agency groups work together towards the most practical and cost effective way to reduce flood risk across the county.

In developing flood alleviation schemes, the County Council will ensure compliance of works with relevant environmental legislation, including the **Habitats and Species Regulations** (2017). It is also recognised that there is the potential for flood risk management works to present opportunities for biodiversity enhancement. The County Council will seek to realise these opportunities where possible.

The County Council will work with the relevant water and sewerage companies in Hampshire to produce Drainage and Wastewater Management Plans using the **UK DWMP Framework** by the

end of 2022, to support their business plans for the 2024 Price Review.

The County Council will work closely with these companies in the development and implementation of innovative flood and water management measures, and a flexible policy approach. We will seek to inform their capital investment plans, which are approved and regulated by Ofwat, and influence their outcome delivery incentives (ODIs) including for sewer flooding, partnership working, sustainable drainage and resilience of services.

The County Council will help facilitate delivery of co-funded schemes with water companies and other RMAs. We will also encourage water companies to examine the potential for optimising the opportunities for rainfall capture and storage as part of an integrated approach to flood and water management.

The County Council recognises that ‘tankering’, pumping wastewater from a sewer into a tanker lorry and taking it away for treatment during an emergency, can be costly, disruptive and damaging to the environment, and is only effective at low levels of flow. Where needed, the County Council will look to facilitate the maintenance of essential water and sewerage services by over-pumping, enabling wastewater which has been screened to be released into nearby rivers, streams or ditches.

The County Council will also work with water companies to secure appropriate provision of infrastructure and capacity improvements for new development, and collaborate in coordinating the management of water supply and sewerage systems with other flood risk management work.

As a Highway Authority, the County Council has the lead responsibility for maintaining and managing the highway under the Highways Act 1980. When bringing forward plans to improve the existing highway or provide new infrastructure, the County Council will look for opportunities to enhance flood resilience. For example, using the road camber and kerb lines to more effectively manage surface water flows on the highway and direct it away from vulnerable properties; installing culverts beneath the highway to enable over-pumping in known high risk areas; and increasing the height of transport infrastructure and evacuation routes that are prone to flooding to reduce their vulnerability and the negative impacts of inundation.

In delivering new schemes, we will work in partnership with other RMAs to identify key services and utilities at risk and then applying a hierarchy of control to minimise or eliminate exposure to hazards. For example, we will encourage the relocation of critical services that are identified to be in high risk areas. Where this isn’t possible, the County Council will support the implementation of adequate protection to remove or reduce the risk.

We have also established two groups to support a partnership approach flood and water management in Hampshire.

Hampshire Strategic Flood and Water Management Board

- National Flood Forum
- Highway Authority
- **Hampshire County Council**
- **The Environment Agency**
- **Thames Water**
- **Southern Water**
- **Wessex Water**
- Hampshire Association of Local Councils
- District Authorities
- National Park Authorities

Hampshire Technical Delivery Group

- Highway Authority
- Lead Local Flood Authority
- Water Companies
- Environment Agency
- District Authority representatives
- Hampshire County Council Emergency Planning
- Hampshire Fire and Rescue

Funding mechanisms

Funding for flood defences or mitigation schemes can come from a number of sources. **Appendix 4** provides a brief list of the main ones.

Successful delivery of flood risk management measures will require innovative ways of working and funding, based on teamwork and trust. Collaborative working and joint funding across partner organisations is key to maximising the return on investment in flood risk management.

Whilst it may be possible to fully fund some projects using only the national and regional funding sources such as Flood Defence Grant in Aid (FDGiA) and local levy, the majority of schemes will require a range of funding sources to make up the total sum needed. Tools such as the **Partnership Funding Calculator** have been developed to assist in funding allocation.

The suitability of potential funding sources depends on a number of factors:

- Total sum required
- Total fund available
- Effort / investment required (number of applications, match funding, etc)
- Qualifying benefits required
- Frequency of availability (e.g. annual)
- Longevity
- Level of competition

Potential Hampshire flood mitigation schemes

Where work is due to be funded by the County Council, the method of prioritisation will follow that set out in this strategy based on catchment prioritisation. However, we recognise that there may be opportunities to benefit from flood mitigation works that are being led by external organisations. The County Council will therefore take a flexible approach to the prioritisation methods described in this strategy in order to help ensure that schemes delivering significant flood risk reduction for people, homes, businesses and key infrastructure, and that would otherwise fail due to lack of funding, can be secured.

Where work is due to be funded by outside sources, the method of prioritising this work may change to incorporate funding guidelines. However, every other set of guidance set out in the strategy will be adhered to.

The County Council has identified a long list of locations where flooding has occurred in the past, and where the potential for the implementation of measures to reduce flood risk is to be explored. A number of these locations are included on the national Flood

and Coastal Erosion Risk Management (FCERM) 6 year programme. Working with the Environment Agency, the County Council will examine the opportunity to secure FDGiA and local levy funding for these, and other locations, as they come forward. Details of these schemes will become available as feasibility studies take place for each site.

Should other funding schemes or opportunities become available for flood and water management initiatives, the County Council will prioritise sites in accordance with the criteria set out in this strategy.



7. Supporting Community Resilience Policy



To improve adaptation to and recovery from flood events Hampshire County Council will encourage and support community resilience

Hampshire County Council realises that the task of flood risk management across the county requires ongoing engagement with local communities. In order to ensure flood resilience across the county is maximised, local residents and communities must be engaged in a long-term programme of flood awareness, riparian maintenance and preparedness. To encourage the growth of this engagement Hampshire County Council will implement the following **actions**:

7A. Increase the number of community Flood Action Groups and emergency Flood Action Plans.

7B. Produce guidance in the form of action plans and recommendations from flood investigation reports to inform communities of the best action to take.

7C. Improve online guidance on funding sources and support available from charities such as the National Flood Forum.

Community resilience is an extremely important area of work for flood risk management. The role of RMAs across Hampshire is to reduce the risk posed by flooding as much as possible. However, there is no guarantee that during exceptional weather events flooding will not occur.

Therefore, the County Council encourages communities that are vulnerable to flooding to

increase their own resilience in order to reduce the effects of flood events.

We work closely with residents' groups to maximise use of local resources and knowledge so that they can help themselves during a flood event. Communities are advised to set up **Flood Action Groups** and emergency plans.

What will the County Council do during a severe flood event?

During an emergency, we will work with the local borough and district councils, parish and town councils, emergency services, the Environment Agency, other RMAs, and local flood action groups to co-ordinate the response for severe flooding.

Working with partners, the County Council will facilitate the implementation of the most appropriate measures. This could include:

- Setting up temporary shelters for those who are evacuated;
- Providing temporary housing;
- Supporting the deployment of flood defences measures such as temporary barriers;
- Making sandbags available at locations of highest risk. Some local borough and district councils provide sandbags for emergencies. Please contact your borough or district council for more information.

- Arranging for roads to be closed and diversion routes established;
- Working with utility companies to prioritise protection of key infrastructure; and
- Enabling over-pumping to maintain water and sewerage services.

The County Council will work with partners during the recovery period to ensure that those affected by the event are able to return to ‘normal life’ as soon as possible. The County Council will investigate the causes of the flooding, record lessons learned and make recommendations. This could include:

- Adjusting flood plans;
- Improving communications with riparian owners about responsibilities;
- Raising awareness of options for property level resilience;
- Increasing the frequency of maintenance operations and targeting interventions at key locations;
- Reprioritising work programmes for the local Lengthsman;
- Highlighting features at risk with other RMAs; and
- Identifying opportunities for measures to reduce future flood risk.

Local Resilience Forum

The Hampshire and Isle of Wight **Local Resilience Forum** is comprised of local Emergency Service responders (Police, Fire, Ambulance), Local Authorities, and associated businesses, organisations and voluntary sector representatives, working together to reduce risk in the local area and improve community resilience.

The group is co-ordinated by the County Council’s **Emergency Planning** team and undertakes various monitoring exercises and regular reviews of flood incidents and processes within the County.

National Flood Forum

Hampshire County Council works with the **National Flood Forum** to help support areas at risk. The forum is a national charity dedicated to supporting and representing communities and individuals at risk of flooding by:

- Helping people to prepare for flooding in order to prevent it or mitigate its impacts
- Helping people to recover their lives once they have been flooded
- Campaigning on behalf of communities who are at risk from flooding and working with government and agencies to ensure that they develop a community perspective

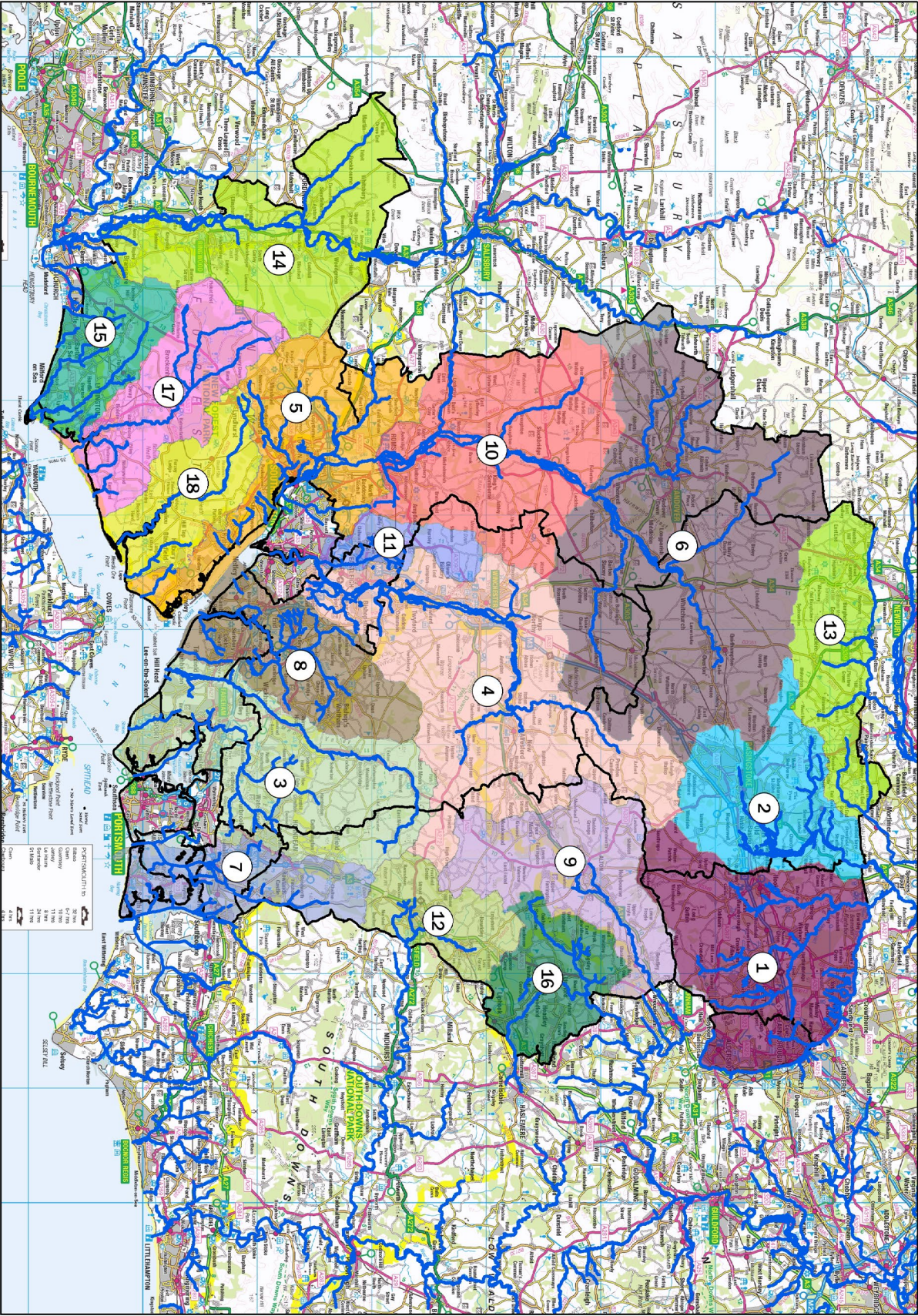
Glossary

EA	Environment Agency	LFRMS	Local Flood Risk Management Strategy
FAG	Flood Action Group	LLFA	Lead Local Flood Authority
FAP	Flood Action Plan	LPA	Local Planning Authority
FCERM	Flood and Coastal Erosion and Risk Management	NGO	Non Government Organisation
FDGiA	Flood Defence Grant in Aid	OW	Ordinary Watercourse
FRCD	Flood Risk and Coastal Development	OWC	Ordinary Watercourse Consent
FWM	Flood and Water Management	RFCC	Regional Flood and Coastal Committee
FWMA	Flood and Water Management Act	RMA	Risk Management Authority
HIWWT	Hampshire and Isle of Wight Wildlife Trust	SuDS	Sustainable Drainage System(s)
LFRM	Local Flood Risk Management	TICP	Test and Itchen Catchment Partnership

Appendix 1

Catchment Plan	Catchment Plan Number	Including	District boundaries (Hampshire)
Loddon East	1	Whitewater, Blackwater, Hart	Rushmoor, Hart
Loddon West	2	Loddon, Bow Brook, Lyde	Basingstoke, Hart
Meon/Wallington	3	Alver, Wallington, Meon	Gosport, Eastleigh, Winchester, Havant, East Hampshire, Fareham
Itchen	4	Itchen	Basingstoke, East Hampshire, Winchester, Eastleigh
Test (Lower)	5	Test, Tanners Brook	New Forest, Test Valley
Test (Upper)	6	Test, Bourne Rivulet	Basingstoke, Test Valley, Winchester
Lavant	7	Ems, Lavant	Havant, East Hampshire
Hamble	8	Hamble	Winchester, Fareham Eastleigh
Wey Western	9	Wey	East Hampshire
Test (middle)	10	Test, Wallop Brook	Test Valley, Winchester
Monks Brook	11	Monks Brook	Eastleigh, Test Valley, Winchester
Rother	12	Rother, Eilmore	East Hampshire
Enbourne	13	Enbourne	Basingstoke and Deane
Avon	14	Avon, Linford Brook	New Forest
Avon Water/ New Milton	15	Avon Water, Mude	New Forest
Wey Eastern	16	Wey, Sleas, Oakhanger	East Hampshire
Lymington	17	Lymington	New Forest
Beaulieu	18	Beaulieu	New Forest

Appendix 1



Appendix 2

How we will develop Catchment Plans

As the LLFA, the County Council has an important co-ordinating role for flood risk management activities. However, other organisations, individuals and authorities also have to play an active role in developing and implementing the plans.

Key Elements for Delivery of Catchment Plans

- A good understanding of how the catchment floods and the areas of risk
- All partners are engaged to deliver individual and joint actions
- Communities understand their role in mitigating flood risk and play an active role within the process and delivery of the actions.

Establish working group

Any flooding within a catchment is likely to have multiple sources of flooding and require a number of different measures. In order to address this, working groups will be established. The co-ordinating authority and organisations needed in the working group will depend on the specific catchment and its flood issues.

The working group may develop and change over time depending on the type of measures and issues identified.

Gather data/information on the flooding mechanisms

Existing information and data on the area and its flood risks will be gathered by the working group and a gap analysis will be undertaken.

Identify key flood risk areas/issues within the catchment

Using the information gathered and local knowledge, the working group will form a 'baseline' of information and knowledge across all partners.

This will identify where further data gathering work may be required such as more surveys/ flood modelling and mapping to better understand the risks and mechanisms of flooding. This additional work may also form part of the actions within the action plan.

Information on the flooding extent and the impact will need to be quantified where possible to support any funding proposals, including from external sources such as Flood Defence Grant in Aid.

Identify and assess measures

At this stage it is important to identify the potential measures throughout the catchment and to make an assessment of the benefits that might be realised through implementing these proposals. Measures will need to be appropriate to the flooding mechanism and where early actions, such as maintenance works, can be completed relatively quickly, these should be progressed subject to funding.

Appendix 3

Designing for SuDS

We recommend that those proposing new developments consider industry standards and best practice when developing any SuDS schemes.

Key principles of SuDS design within Hampshire

SuDS systems should be considered within the development as early as possible within the pre-planning phase. This should include understanding the constraints and opportunities of including SuDS within a new development.

These constraints and opportunities may include for example the geological conditions in some areas of the development, the integration of open space and landscaping, and the potential land taken for these SuDS features balanced against other requirements.

The **criteria for water quantity and quality** should be identified at the earliest opportunity. In terms of water quality this should be based on the pollution potential of the proposal development and the sensitivity of the receiving water body.

The design should meet the runoff and water quality criteria whilst being as **uncomplicated in design as possible**. The aim of the design should be to reduce the maintenance requirements over the longer term.

Spatial location of any SuDS features should also be considered within the layout and form of the development. SuDS that are below ground or hard to access should be avoided where possible as these are often more difficult to

We recommend the following best practice documents:

- CIRIA The SuDS Manual C753
- Planning for SuDS –making it happen C687

Available on <http://www.susdrain.org>

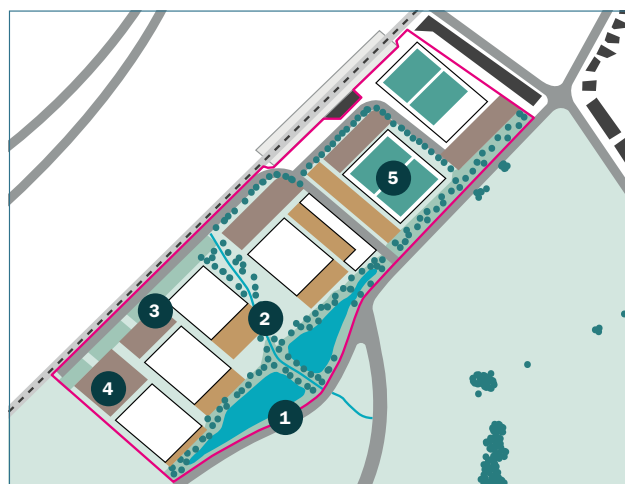
For further information see:

Water, People, Places

reach for inspection and maintenance purposes.

SuDS Brief

- 1 Pond
- 2 Daylighted water course
- 3 Swale
- 4 Permeable paving or bioretention
- 5 Warehouse green roof



Appendix 4

	Source	Administered by	Summary
Defra Partnership funding	Defra	EA/RFCC	Capital funding from Government is provided through Flood Defence Grant-in-Aid (FDGiA). This is provided by Defra and administered and managed by the Environment Agency, although funding approvals are also subject to the consent of the relevant Regional Flood and Coastal Committee (RFCC). Defined 'Outcome Measures' are used to determine which applications will receive funding, and how much.
Local Levy	Levy (precept) on County and Metropolitan Councils, Unitary Authorities and London Boroughs.	RFCC	Funds raised using the existing RFCC local levy will count as a local contribution in terms of the FDGiA process, even though the levy is supported by funding through the Department of Communities and Local Government. Local Levy funding can be used to support flood risk management projects that do not attract 100% national funding through FDGiA, thus enabling locally important projects to be undertaken to reduce the risk of flooding within the RFCC area.
Local Authority Capital & Revenue Funding	Council Tax	Local Authorities	Authorities have their own funding for capital projects and revenue programmes which may also be used for flood risk management purposes.
Non-Government Organisations	Donations	Individual organisations	NGOs are non profit, voluntary citizens' groups organised on a local, national or international level. NGOs tend to be task-oriented, driven by people with a common interest, and maybe organized to provide analysis and expertise around specific issues.
Section 106 agreements	Developers	Local Planning Authorities	Used to support the provision of services and infrastructure, including flood risk management measures. The agreements provide a means to ensure that a proposed development contributes to the creation of a sustainable environment, particularly by securing contributions towards the provision of infrastructure and facilities. Site viability is key to a developer's willingness to contribute to this type of agreement. The earlier any LFRM costs associated with a site are identified the better, since developers can then factor these costs into the price of the land and make informed decisions as to the overall viability of the site.
Community Infrastructure Levy	Developers	Local Planning Authorities	This is to be spent on local and sub-regional infrastructure to support the development of the area. Key to securing potential CIL receipts is early identification of the need for flood risk management infrastructure so that it can be factored into the setting of the charge.

