Westmorland & Furness Council

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Local Flood Risk Management Strategy




Contents

Annexes

Introduction

Background

The Flood and Water Management Act 2010 (the Act or FWMA) makes county and unitary authorities Lead Local Flood Authorities (LLFAs) with an overview role for local flooding in their area. Cumbria County Council (W&FC) was the LLFA in Cumbria and is still represented at the North West Flood and Coastal Committee, however Westmorland and Furness Council and Cumberland Council are the LLFA for their respective locations. A Local Flood Risk Management Strategy (LFRMS) is a requirement for all LLFAs to set out how local flood risks will be managed in their respective Unitaries, who will deliver them and how they will be funded. It is therefore the intention of this Local Flood Risk Management Strategy to include only the elements within Westmorland and Furness Councils (WFC) jurisdiction.

The Role of Westmorland and Furness Council

FWMA duties were key recommendations in the Pitt Review following the 2007 floods. Cumbria was hit badly in 2005, 2009 and 2015 by flooding, but these events were dominated by flooding from large rivers. The Pitt Review concluded that up to 60% of flooding occurs locally from other sources, namely:

- Surface water,
- Groundwater,
- Ordinary watercourses.

It is LLFA's responsibility to manage the risks associated with flooding from these sources. The Environment Agency (EA) continues to manage flooding risk on main rivers, reservoirs and the coast. Many other authorities, defined as Risk Management Authorities (RMAs) under the Act, have a role to play in the management of these flood risks across Westmorland and Furness. They include Westmorland and Furness Council as a Coastal protection Authority and a Water company, United Utilities (UU) and Westmorland and Furness as Highway Authority. National Highways

These authorities continue to work in flood risk management and in the past, this has presented a confusing picture for the public. Each LLFA must take a lead in its area and this Strategy identifies how WFC will do that. As a requirement under the FWMA it sets out how local flood risks will be managed in the Unitary, who will deliver them and how they will be funded. It will help flood risk management organisations and communities understand different roles and responsibilities and how agencies or authorities will work together to manage local flooding.

It will therefore by the purpose of this document to;

- Coordinate the resources available in the flood RMAs to maximise a reduction in local flood risk;
- Promote a wider understanding and awareness of flooding in Westmorland and Furness;
- Explain how everyone can play a part in reducing flood risk; "who does what".

What is local flood Risk Management (LFRM)?

Local Flood Risk Management refers to a comprehensive approach towards understanding, assessing, and mitigating the risks associated with flooding that originates from local sources, as opposed to larger, main river systems or the sea. This includes flooding from surface water runoff, groundwater, and ordinary watercourses—streams, ditches, and small rivers not designated as main rivers. LFRM is crucial for safeguarding communities, property, and natural habitats from the detrimental impacts of flooding, and it encompasses a wide range of activities and responsibilities:

Understanding Flooding Origins

LFRM begins with a thorough assessment of where flooding may occur within a locality and the reasons behind it. This involves mapping flood risks, historical flood analysis, and understanding the impacts of local topography, land use, and climate on flooding patterns. Identifying vulnerable areas and infrastructure is key to prioritising flood risk management efforts.

Risk Reduction Actions

To reduce the likelihood and impact of local flooding, LFRM strategies include the design and implementation of various measures. These can range from physical interventions, such as the construction of retention basins and permeable surfaces to absorb rainwater, to the maintenance and enhancement of natural flood management features like wetlands and woodlands that can slow down runoff. Sustainable Drainage Systems (SuDS) play a crucial role in managing surface water runoff effectively and are increasingly integrated into urban planning to mitigate flood risks.

Adapting to Flood Risks

Recognising that it is impossible to eliminate flood risk entirely, LFRM focuses on resilience and adaptation strategies to minimise the impacts when flooding does occur. This includes developing flood warning systems, emergency response plans, and community awareness programs to ensure quick and coordinated actions during flood events. Property-level protection measures, such as waterproofing and the installation of flood barriers, are encouraged to enhance individual and community resilience.

Planning and Preparedness

Effective LFRM requires forward planning and preparedness to deal with flood events. This involves the regular maintenance of drainage systems, continuous monitoring of flood defenses, and the integration of flood risk management into local development planning to avoid exacerbating flood risks through inappropriate land-use choices.

Collaboration and Engagement

A key aspect of LFRM is the collaboration among various stakeholders, including local authorities, the Environment Agency, water companies, landowners, and the community. Engaging with the public to raise awareness about flood risks and ways to mitigate them is essential for building flood-resilient communities. Local Flood Risk Management Strategies, developed by Lead Local Flood Authorities (LLFAs), outline the roles and responsibilities of different stakeholders and provide a framework for managing local flood risks in a coordinated manner.

Funding and Implementation

Implementing LFRM measures requires investment. Funding can come from government grants, local authorities, private contributions, and other sources. Identifying cost-effective measures and securing the necessary funding for their implementation is a critical challenge that LLFAs and their partners must navigate. Collaboration to align schemes and funding opportunities.

In summary, Local Flood Risk Management encompasses a holistic approach to managing flood risks from local sources. It involves a combination of understanding the causes of flooding, implementing physical and natural risk reduction measures, planning for emergencies, and engaging with communities to ensure preparedness and resilience against flooding. Through collaborative efforts and strategic planning, LFRM aims to protect lives, property, and the environment from the adverse effects of local flooding events.

Figure 1 has been removed. A diagramatic overview of where the LFRMS sits in relation to other policy and strategy (both national and local) would help to explain how RMAs are integrated. This should be updated to include the NW RFCC as we deliver ambitions set through this group as part of our strategic priorities.

Background to the Flood & Water Management Act 2010

The Act provides the legislative framework to deliver better flood and coastal erosion risk management based on the recommendations from the Government's key policy documents and associated consultations over recent years:

- Making Space for Water Strategy 2004 recommended that the EA has a strategic overview across all flooding and coastal erosion risks. The Environment Agency has carried out this role on a voluntary basis since 2008 when it was officially appointed. The legislation now gives it the powers and duties to fully deliver this function, namely through the National Flood and Coastal Erosion Risk Management Strategy for England.
- Government's Strategy Future Water 2008 highlighted the need to actively manage surface water and groundwater and the impacts they have on other sources of flooding. Previously no one organisation had responsibility for surface water or groundwater flooding.
- The Pitt Review 2008 went one step further recommending that local authorities take on responsibility for managing local flood risks, including surface water and groundwater. The Pitt Review also highlighted the need for a single unifying Act which the FWMA goes some way towards achieving.
- In addition, the Act provides an essential link to the Flood Risk Regulations 2009 arising from the European Union (EU) Floods Directive. The Act and the Regulations combined provide the legislative framework for the management of future flood and coastal erosion risk.
- A National Flood and Coastal Erosion Risk Management Strategy has been produced by the EA as required under the Act. It is broad and high-level, setting out the current risk and ways in which it can be managed and objectives and measures for doing so, along with the current and predicted impact of climate change on flood and coastal erosion and how risk management authorities can contribute to the achievement of wider environmental objectives. It gives 'teeth' to the Agency's Strategic Overview role as advocated by Making Space for Water.
- Local strategies will be essential in achieving flood risk outcomes and will need to be consistent with the objectives set out in the National Strategy.
- Once in place all RMAs will be required to carry-out their flood and coastal erosion risk management activities in line with the objectives in the national and local strategies, with the exception of water companies who are exempt from this but must pay due regard.
- This whole process is underpinned by a duty for flood risk management authorities to cooperate when undertaking this work, and provides flexibility for them to make arrangements with other risk management authorities to carry out work on their behalf.
- Provisions for a LFRMS are covered by Section 9 of the FWMA 2010 as follows (text from the Act is provided in italics):
    - *9 Local flood risk management strategies: England*
    - *(1) A lead local flood authority for an area in England must develop, maintain, apply and monitor a strategy for local flood risk management in its area (a "local flood risk management strategy").*
    - *(2) In subsection (1) "local flood risk" means flood risk from*
        a. *surface runoff,*
        b. *groundwater, and*
        c. *ordinary watercourses.*
    - *(3) In subsection (2)(c) the reference to an ordinary watercourse includes a reference to a lake, pond or other area of water which flows into an ordinary watercourse.*

Definitions

In simple terms, surface water flood risk is any flood source outside of main rivers and the sea. This includes flooding from sewers and drainage systems as a result of heavy rainfall, ordinary watercourses (culverted or open), groundwater and runoff flooding. In more detail, surface water flooding in the context of a LFRMS includes the following sources in Figure 1;

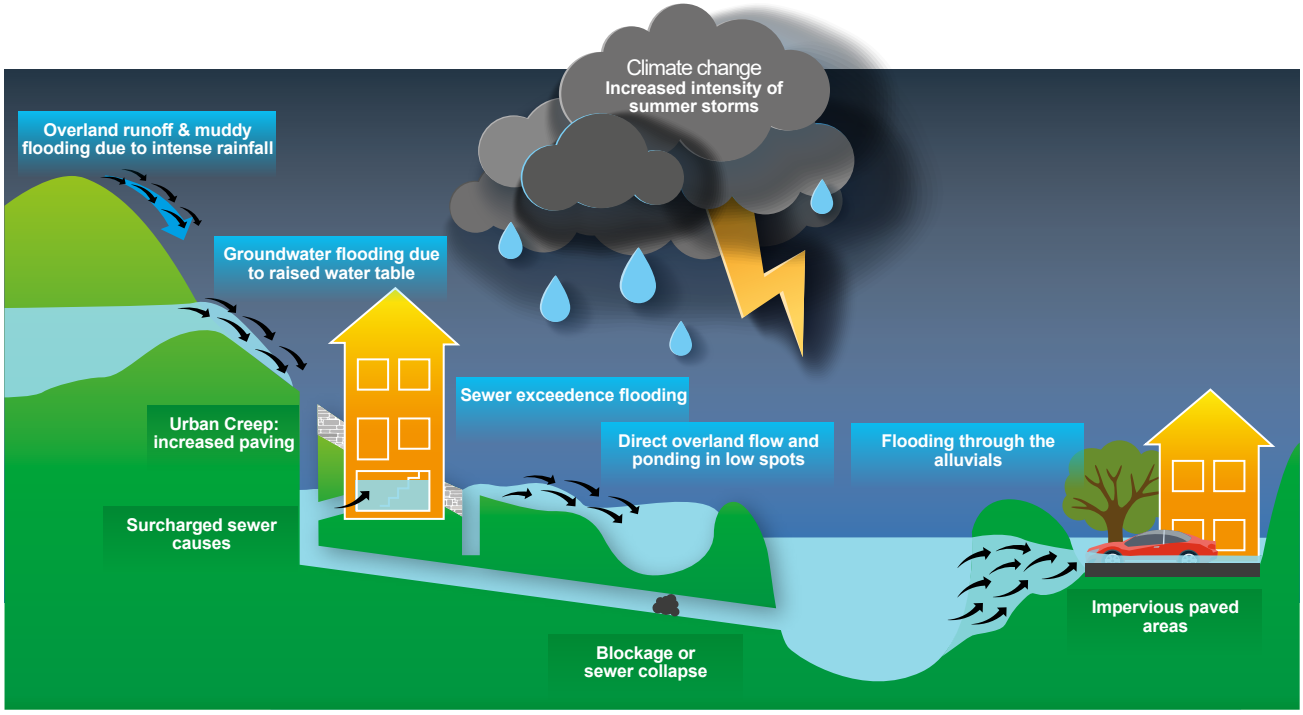

Figure 1 - Flooding from local sources

Surface water runoff: Runoff as a result of high intensity rainfall when water is ponding or flowing over the ground surface before it enters the underground drainage network or watercourse, or cannot enter it because the network is full to capacity, thus causing flooding (known as pluvial flooding);

Flooding from groundwater: Where groundwater is defined as all water which is below the surface of the ground and in direct contact with the ground or subsoil.

Sewer flooding: Flooding occurs when the amount of water entering the sewerage system exceeds its design capacity or when the system becomes blocked, resulting in flooding inside and outside of buildings. Note that the normal discharge of sewers and drains through outfalls may be impeded by high water levels in receiving waters as a result of wet weather or tidal conditions;

Flooding from open-channel and culverted watercourses

This type of flooding occurs when watercourses, either in their natural open state or modified as culverts (channels or large pipes hidden underground designed to convey water), overflow or become blocked, leading to water inundating the surrounding land. Open channels can include streams, brooks, becks and ditches that are prone to overflowing during heavy rainfall or when obstructions impede the flow of water. Culverted watercourses, due to their confined nature, are particularly susceptible to blockages from debris, resulting in rapid and localised flooding that can affect urban areas where such infrastructure is common.

Overland flows from the urban/rural fringe entering the built-up area

This form of flooding refers to the movement of water from the boundary areas between urban and rural environments into developed urban spaces. The transition zones, or fringes, often feature a mix of permeable and impermeable surfaces, and during heavy or prolonged rainfall events, the capacity of natural and man-made drainage systems to absorb or redirect water may be exceeded. Consequently, runoff from agricultural fields, hillsides, or natural landscapes can accumulate and flow overland, entering urban areas and potentially causing flooding in streets, homes, and other structures.

Overland flows resulting from groundwater sources.

Overland flows resulting from groundwater sources occur when water from underground aquifers or water tables emerges on the surface, creating flows across the land. This can happen after periods of significant rainfall, when the ground is saturated to the point that it cannot absorb any more water, causing the groundwater level to rise and surface as springs or seepages. These groundwater-induced overland flows can contribute to flooding, especially in low-lying areas where natural drainage is poor, leading to water pooling and spreading over large areas.

Although in theory surface water flooding can be defined and separated from main rivers and the sea, the reality can be different. Surface water flooding is often linked to main rivers and the sea. High river levels can back up sewer outfalls or smaller watercourses leading to upstream flooding. High tides can also prevent a free outfall and be a key element of surface water flood risk. It is necessary to identify surface water flood risk so that the LLFA is aware of locations where it has a responsibility. However, when it comes to identifying options and undertaking a scheme, it will be important to work with others as partners so that a sustainable solution can be found.

Statutory requirements of a Local Flood Risk Management Strategy

Section 9 of the Flood and Water Management Act 2010 continues as follows (text from the Act is provided in italics);

(4)The strategy must specify:

(a) the risk management authorities in the authority's area;
(b) *the flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area;*

Under **'Roles and Responsibilities in WFC'** section of this document explains who the main RMAs are in Westmorland and Furness and summarises the functions they may exercise. 'Annex A Governance and Partnership Arrangements' gives an overview of partnerships and governance arrangements that some or all risk management authorities are involved in working together to deliver flood risk management functions.

(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).*

Under **Objectives of managing local flood risk** of this document sets out the LFRM objectives for Westmorland and Furness and explains the supporting principles from relevant documents that help to shape them. The 'objectives' of this LFRMS are the FCRM policies of WFC.

(d) the measures proposed to achieve those objectives.

These are discussed under **Measure supporting the Westmorland and Furness Local Flood Risk Management Strategy** with further detail in Annex C. 'Measures' are actions in the context of this LFRMS.

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

Section 5.3 examines the partnership working approach that will be adopted to deliver the measures serving the objectives introduced in Section 4. A Local Flood Risk Management Action Plan identifying a timeline for the measures to be implemented is discussed in Section 6 and detailed in Annex D.

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

Section 6 looks at sources of funding. Section 5 and Annex D describe the benefits achievable from the proposed measures. A cost/benefit analysis of proposed flood defence schemes has been carried out in the Cumbria SWMP.

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

This has been covered by the Cumbria SWMP and the methodology adopted is discussed in Annex B.

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

Section 7 looks at future strategy review and the process anticipated to update the Cumbria LFRMS.

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

This subject matter is embodied within this strategy which has been the subject of a statutory Strategic Environmental Assessment. See Annex E. The Strategy has also been the subject of a Habitats Regulations Assessment, Annex F, and a Water Framework Directive Assessment, Annex G.

(5) The strategy must be consistent with the national flood and coastal erosion risk management strategy for England under section 7.

This requirement is discussed in Section 4.

This Local Flood Risk Management Strategy has been produced by the Cumbria LLFA responding to these requirements of Section 9 of the FWMA.

Flooding in Westmorland and Furness

All types of flooding occur in Westmorland and Furness. This section provides an introduction with references to further information and how flood risk is being managed by different authorities.

Responsibilities for flooding are shared between these organisations, and it is important to understand that there is a mix between different types of flooding. Rain falls over an area, soaking into the ground potentially increasing groundwater levels. If the ground is saturated or the land is covered by hard surfaces, it will flow over the surface to nearby watercourses or through land drains or sewers. See Figures 2. Watercourses flow to rivers, collecting rain from overland flows, more drains and sewers on the way. The river will flow towards the sea, collecting water from more local watercourses or from groundwater if the water table is high enough.

If at any point the water flows exceed the capacity of the watercourse carrying it, flooding will occur. This could be caused by extremely heavy rainfall or because the system is blocked. Increases in hard surfacing, for instance, through new development, will mean the land will not be able to absorb as much rain, resulting in more runoff and more flow will be created which may cause flooding. Management and maintenance of the land and drainage systems in the area can have real impacts on the risks associated with flooding locally or downstream.

Whilst flooding can cause widespread damage to the environment it must always be seen as a natural process. For instance we need to preserve areas of floodplain to temporarily store floodwaters and wildlife can benefit from flooded land.

RMAs have powers and duties for the various forms for flooding that can occur. Different types of flooding are introduced below, along with the risk management authorities that are involved in addressing them. Because of the potential mix of different forms of flooding, solutions may be very complex and involve several risk management authorities.

Flooding characteristics

The nature of surface water flooding in Westmorland and Furness is varied and dependent on the landform, landscape features and man-made assets. Most, if not all, of our land and water flow systems have been heavily modified by man. With every change in land use and management the natural environment responds in a natural way; some of this response is damaging to man's needs, and much of it 'undoes' the modifications that man has made.

Westmorland and Furness is a rural county, so typical urban flooding is not as common as in other locations in the UK, i.e. flooding related to urban watercourses; large, long culverts; and large complex drainage systems. In Westmorland and Furness, Barrow-in Furness is the largest urban area where large surface water drainage systems and urban watercourses are likely to be found. Barrow has had a lot of investment especially from UU, meaning it is not a significant surface water flooding location. But although improvements have been made to drainage and flood defence infrastructure reducing flood risk, notable risk remains if design limits are reached and assets are not maintained.

In December 2013, the EA made a wide range of new flood maps available on the internet. Many of these have not been publicly available before such as surface water, groundwater and reservoir flooding. The maps can be viewed here: **http://watermaps.environment-agency.gov.uk**

Local flooding

Surface water flooding

Outside Barrow, surface water flooding issues can be roughly split into two types. Firstly there are low lying drainage systems that back up and secondly Westmorland and Furness has steep catchments with many surcharging watercourses in a dense built environment leading to flash flooding.

The low lying systems are typical of Ulverston, some areas of Grange-Over-Sands and other coastal locations. These are generally very flat areas with little gradient in the drainage system. This means that it can be difficult to get a gravity outfall to a larger watercourse or the sea. The gentle gradient can lead to the receiving watercourse silting up, further reducing the gradient and potentially silting up outfalls. In addition, low lying tidal areas will find it difficult to get a free discharge into the sea or estuaries during high tides or storm surges. These situations require investment in adequately designed and maintained drainage systems.

The flash flood systems are typical of inland hilly places like Kendal, Windermere, Ambleside, and Grasmere. During storm events, these locations are prone to flash floods due to rapid runoff from the surrounding hills. This is partly due to the topography (small, steep catchments) and the geology (impermeable bedrock and thin soils). Once the runoff reaches the settlements, the problems are exacerbated. There is therefore a lot of dense development next to small watercourses with very little green space to allow watercourses to surcharge. This constrains already swollen watercourses leading to surcharging (capacity of the watercourse channel is exceeded) and flooding of the many close by properties.

A lack of vegetation and damaged peatlands in the upper catchments reduces the capacity of the land to hold water and speeds the flow of into the river channels. This rapid runoff increases the peak flow of flood waters and may increase the risk of flooding further downstream. The restoration of natural habitats would help to manage surface water flooding.

There have been many high profile flood events in Westmorland and Furness. The main flood mechanism for these incidents has been a main river. However, during these events and at many other times, there have been damaging localised floods that should not be overlooked.

In all major settlements, there have been many different surface water flooding incidents. However, some settlements have experienced many more than others. In these situations, the reasons are topography and asset capacity/functionality. Ulverston for example is low lying and the drainage system has inadequate capacity to with flows backing up from a Main River and the sea during high tide.

Westmorland and Furness Preliminary Flood Risk Assessment (PFRA)

A Preliminary Flood Risk Assessment was prepared by W&FC in 2011 to deliver the requirements of the Flood Risk Regulations (2009). In 2017 an update to the Cumbria County Council's Lead Local Flood Authority PFRA was published on the gov.uk website. These Regulations established four stages of a flood risk management cycle, scheduled for completion in June 2015. The PFRA is the first stage. The aim of this Regulation is to manage both the likelihood and the consequence of flooding. The PFRA process was aimed at providing a high level overview of flood risk from local flood sources, including surface water, groundwater, ordinary watercourses and canals. The methodology for producing the PFRA was based on the EA's Final PFRA Guidance and DEFRA's Guidance on selecting Flood Risk Areas, both published in December 2010. The EA used a national methodology, which has been set out by DEFRA, to identify indicative Flood Risk Areas across England. Of the ten indicative Flood Risk Areas that were identified nationally, none were located in Westmorland and Furness.

No Flood Risk Areas were identified in Westmorland and Furness through the PFRA process. Based on information supplied by the EA, the largest flood risk 'cluster' (projected flood risk locations within a 3kmx3km area) is Kendal with approximately 1973 people estimated to be at risk from surface water flooding during a 1 in 200 rainfall event. This falls some way below the 'significant' threshold of 30,000 people at risk determined nationally.

The PFRA found that surface water flooding is estimated to affect 23,500 properties in Cumbria. It has provided a sound platform from which to develop Westmorland and Furness's LFRMS, particularly when combined with the findings of the Surface Water Management Plan.

Cumbria Surface Water Management Plan (SWMP)

The SWMP was designed to identify which parts of the county are at greatest risk of flooding from surface water and to establish a strategy to best manage those risks. The procedures followed were guided by the SWMP Technical Guidance (DEFRA, March 2010). Produced by consultants the Cumbria SWMP took over 18 months to deliver in 2013.

A SWMP study was undertaken in consultation with key local partners who are responsible for surface water management and drainage in their area. Partners worked together to understand the causes and effects of surface water flooding and agree the most cost effective way of managing surface water flood risk in the long term. A Steering Group was assembled to assist in governing the project, incorporating the six local authorities in Cumbria, two National Park Authorities, UU and the EA.

The Steering Group was consulted during all major stages of the plan preparation. Steering Group meetings have also taken place at key stages of the plan development. This allowed members to influence the direction of the study and to highlight flood risk locations in their local authority areas. The Steering Group agreed to the proposed action listed in the Cumbria SWMP Action Plan which has been incorporated into this LFRMS. Each action has been allocated a lead organisation along with partner organisations.

The SWMP is discussed further in 'Risk Assessment' and summarised in Annex B of this LFRMS. The Plan was not published but key outputs from it have been used as the technical basis of this Strategy. Copies of the Plan are available on request from the Westmorland and Furnesees Flood and Coastal Risk Management Service.

Groundwater

Groundwater flooding occurs from high groundwater levels or from water flowing from springs. This usually occurs after long periods of sustained high rainfall, and the most vulnerable areas are often low-lying where the water table is more likely to be at a shallow depth.

Groundwater flooding is very complex and requires significant investigation to achieve a basic understanding. It is very difficult to assess the location, likelihood and volume of groundwater flooding. Consequently it is difficult to quantify the risk of groundwater flooding to Westmorland and Furness.

The EA continues to improve mapping of areas susceptible to groundwater flooding. The mapping available is at a strategic scale providing a broad feel for the wider areas which might be at risk from ground water flooding. Large areas of the county are shown as being vulnerable to ground water flooding. Despite the complex underlying geology of Westmorland and Furness it is the superficial deposits formed during glaciation that make flooding from groundwater a potential risk across the county.

This strategy will seek to improve our understanding of the influences on this form of flooding and the means by which it can be identified. Flood events linked to groundwater levels will be monitored to identify vulnerable areas, promoting resistance and resilience measures.

Ordinary Watercourses

Ordinary Watercourses are small watercourses that are not designated as Main Rivers. The powers to manage Ordinary Watercourses lie jointly between the LLFA and district/borough councils. Enforcement powers for ordinary watercourses lie with the LLFA. Ordinary Watercourses flood in a similar fashion to main rivers, but because these watercourses are smaller the flooding is more localised.

This local strategy will identify Ordinary Watercourse flood risk in Westmorland and Furness requiring investigation and how this will be prioritised.

Sewer flooding

Flooding occurs when the amount of water entering the sewerage system exceeds its design capacity or when the system becomes blocked. This type of flooding is particularly severe when a combined sewer (a sewer that carries both surface water and foul water) floods as it causes effluent to be discharged that can have health and environmental consequences.

Sewer flooding in Westmorland and Furness is the responsibility of the Water Authority which for Westmorland and Furness is United Utilities (UU). They have statutory responsibilities to investigate internal flooding to properties and this is monitored by Ofwat.

River flooding

River flooding (also known as fluvial flooding) occurs when flows exceed the capacity of the river channel. Heavy rainfall can cause river levels to rise and flood adjacent low-lying areas.

Rivers are divided into two categories: main rivers and ordinary watercourses. The EA has 'permissive powers' to manage flood risk from main rivers, which are rivers that can cause significant disruption if they flood and need special management to reduce the risks of flooding. Main rivers are identified on the EA 'Flood Map for Planning (from Rivers and the Sea)', which is available on their website: http://www.environment-agency.gov.uk/homeandleisure/37837.aspx

'Permissive powers' mean this work is not a duty for the EA, and as such the exercising of these powers is at the Agency's discretion.

Catchment Flood Management Plans

The management of flood risk from main rivers is set out in Catchment Flood Management Plans (CFMPs) produced by the EA. These plans give an overview of the flood risk in each river catchment and recommend high-level policies for managing those risks now and over the next 50-100 years.

There are seven CFMPs in Westmorland and Furness:

- Eden
- South West Lakes
- Kent & Leven
- Lune
- River Tyne
- River Tees
- Duddon

Details of these CFMPs can be found here: **http://www.environment-agency.gov.uk/research/planning/114513.aspx**

This local strategy does not include any specific approaches to manage flooding from main rivers. However, main river flooding will affect local forms of flooding to be addressed by this strategy.

CFMPs are planning tools used to develop flood risk policy, and promote collaborative working between organisations within river catchments. CFMPs survey the flood risks across a catchment, and consider the potential impacts of climate change on these risks. Catchments are divided into sub-areas, with each assigned to one of six policies. The policies indicate the amount of work required to reduce flood risk in a sub-area to an acceptable level. Within sub-areas particular actions are recommended. River Basin Management Plans are at a larger scale, containing several CFMPs and addressing a wider range of environmental issues.

Catchment-based policy and planning

Using the river catchment to plan flood risk management is not a new idea, but it has come to the fore over the past decade. Integrated catchment management focuses both on reducing flood risk and on delivering wider benefits such as wildlife and water quality improvements. This is assumed to be an effective way of working towards 'good ecological status' for water bodies, as required by the EU Water Framework (2000/60/EC) Directive. The EU Floods (2007/60/EC) Directive, EA CFMPs, and its River Basin Management Plans have all contributed to the development of this method of planning. CFMPs focus on where working with natural processes could help to manage inland flood risk.

This Strategy will be implemented via the existing three administrative and operational areas in Westmorland and Furness, namely Barrow-in-Furness, Eden and South Lakeland. These areas do not correspond to the seven river catchments in the county but actions arising from the LFRMS will be assessed in the context of the policies contained within the CFMPs.

Coastal flooding and erosion

Coastal flooding is caused by poor weather conditions combined with high tides, causing sea levels to rise resulting in flooding of coastal areas. High tides and increased sea levels can also impede rivers and drains that flow into the sea, which can cause inland flooding. Coastal processes, tides and waves can also cause coastal erosion, where the shoreline is worn away causing a loss of land and threatening properties, transport infrastructure and many other types of development.

Responsibilities

- **Environment Agency:** The EA holds a strategic oversight and leadership role for coastal risk management, including flooding and erosion. It works in partnership with CPAs, providing support and guidance on flood and coastal erosion risk management activities. The EA's responsibilities encompass regulating reservoir safety, issuing flood forecasts and warnings, and identifying opportunities to enhance the environment.
- **Coastal Protection Authorities:** Westmorland and Furness Council, under the Core service of Flood and Coastal Risk Management oversee flood & coastal erosion on their coast. CPAs are responsible for overseeing flood and coastal erosion risk management on their coastlines. This includes managing coastline inspections, monitoring, and promoting defense schemes on land they own, as stipulated under the Coastal Protection Act 1949. CPAs play a crucial role in developing Shoreline Management Plans (SMPs), which outline long-term strategies for managing coastal risks .
- **Lead Local Flood Authorities:** Westmorland and Furness Council, under the Core service of Flood and Coastal Risk Management. As LLFAs, councils have an overarching responsibility for managing local flood risk, which includes coastal flooding. Their duties include investigating flooding incidents, maintaining a register of flood risk assets, and ensuring the development of sustainable drainage systems. LLFAs work closely with other risk management authorities to implement flood risk mitigation projects and strategies.
- **Highways:** Westmorland and Furness Council Core Service for Highways. Highways authorities are tasked with managing public highways, including their drainage systems, under the Highways Act 1980. They are responsible for ensuring that highway drainage does not contribute to flooding risks, including those associated with coastal areas.
- **Private landowners:** Owners of coastal and adjacent lands have a responsibility to maintain their frontages to prevent increased flood risk. This includes ensuring that any coastal defences or features on their property are well maintained. Private landowners must cooperate with risk management authorities to ensure a cohesive approach to managing coastal flood and erosion risks.

The management of coastal flooding and coastal erosion risks is set out in Shoreline Management Plans (SMPs) produced by the CPAs working in partnership with the EA's Coastal Strategy.

Details of the SMPs that cover the coastline of Westmorland and Furness can be found on: http://www.environment-agency.gov.uk/research/planning/105014.aspx

The purpose of these plans is to provide a large-scale assessment of the risks associated with coastal processes and a policy framework to reduce these risks, both to people and the environment, in a sustainable way over the next 100 years.

In 2017 Cumbria County Council worked with the Cumbria Coast Protection Authorities, the Environment Agency and other organisations to develop a coastal strategy for the future management of the coast from Arnside to the Scottish Border. In 2022 the strategy was endorsed by all authorities. In summer of 2024 the new Unitary Authority, Westmorland and Furness Council will produce the first part of the Shoreline Management Plan.

The strategy covers all of coastline and looks at how we might manage risks from coastal erosion and flooding in the future. The Shoreline Management Plan divided the Westmorland and Furness coastline into 9 policy locations within Sub cell 11c as seen below in. Each policy location includes a number of policy units. We have used these same units in our strategy. We have decided which policy units may have coastal defence management needs in the short term. This may be where:

- There are key assets at possible risk from coastal flooding or erosion,
- The current Shoreline Management Plan policy has been questioned, or
- There are opportunities to improve the environment and bring benefits to an area.

We have called these priority units. Here, we have looked at different approaches to dealing with future coastal flood and erosion risks and developed a preferred approach based on technical appraisals and feedback from the consultation events. Along the rest of the coast, we have considered the current Shoreline Management Plan policy and recommended future activities.

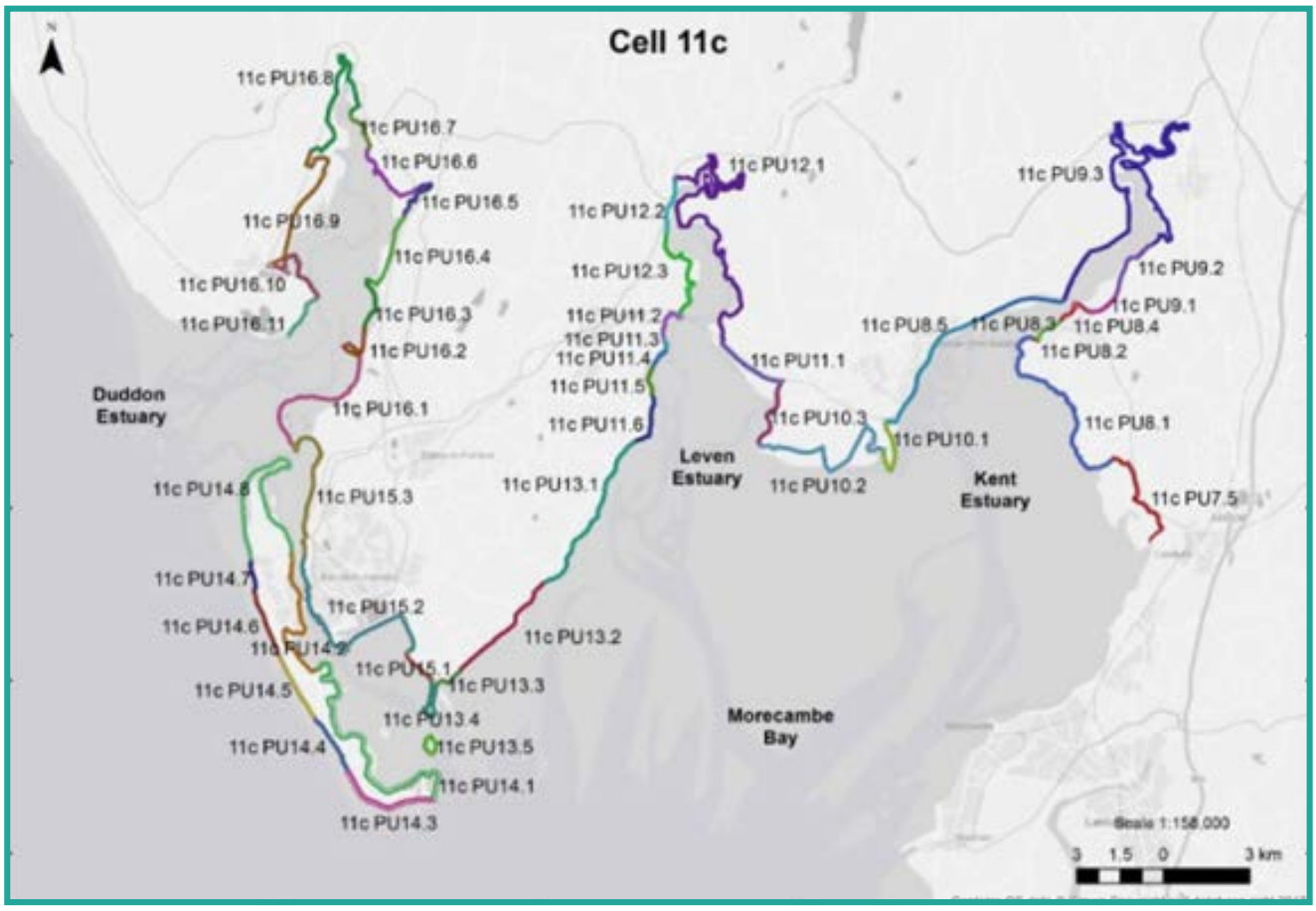

Figura 2: Sub cell 11c Policy locations

More details can be found in a series of supporting documents to the strategy, which provide more detail for each policy unit and also cover topics such as:

- Future actions
- Costs and benefits
- Environmental impacts

Flood Risk Management Plans

The 2009 EU Floods Directive requires the EA to produce a Flood Risk Management Plan for each River Basin District across the country by December 2015. LLFAs are also required to produce an FRMP if they are located within a 'Significant Flood Risk Area'. Only Liverpool and Manchester are Significant Flood Risk Areas in the north-west, as such Westmorland and Furness does not have to produce a Flood risk Management Plan.

These plans identify the risk from flooding and set out objectives and measures for managing that risk. In so doing, they aggregate information about all sources of flooding - and coastal erosion where appropriate - to better inform prioritisation, decision making and work programming.

This LFRMS will be used as a reference document in the development of the three FRMPs within the area covered by the Strategy:- the North-West, Solway Tweed and Northumbria. The Westmorland and Furness LFRMS provides the local context for each of these FRMPs.

The EA, local authorities, water companies, and Highways Authorities carry out a Risk Management Authority role in relation to flooding. We all work together to help communities and businesses understand their flood risk, deliver solutions to minimise this and support them to adapt to flooding and become more resilient, if the worst should happen.

Roles and Responsibilities in WFC

What are risk management authorities (RMAs)?

The management of flood risk is shared by many different risk management authorities (RMAs) in Westmorland and Furness, each with different responsibilities, powers and duties. To adequately face the challenge of flood risk management in times of austerity and climate change, it is essential that they work together, partnering activities and resources.

Westmorland and Furness has experienced three major flood events in recent times; in 2005, in 2009 and in 2015. Many lessons have been learnt, particularly partnership working between authorities in preparing for and responding to such events. Consequently, exemplar standards have been achieved and recognised nationally.

This section explains who the main RMAs are in Westmorland and Furness are and summarises the functions they may exercise. Definition as an RMA under the Flood and Water Management Act allows these authorities the opportunity to bid for flood and coastal risk management grant in aid (FCERM GiA) funding and, if successful, to undertake the works. These authorities are required to act in accordance with this local strategy when undertaking activities that affect local flood risk management and the National Strategy when undertaking activities that affect all forms of flooding.

RMAs in Westmorland and Furness and their flood risk management roles

Section 6, Cl. 13 of the FWMA states (text from the Act is provided in italics);

'Risk management authority' means— (a) the Environment Agency,

In April 2008 the EA took on the strategic overview role for the coast in England, giving EA an overarching role in the management of our coastline. The Agency is responsible for the prioritisation, funding and provision of sea flooding and coastal protection works and flood alleviation schemes on main rivers. It manages its own assets in these areas that reduce the risk of flooding. Its functions include promoting flood defence schemes, and it will work with LLFAs and local communities to develop schemes which respond to local priorities.

The EA provides flood warnings and responds to flood incidents for Main River and coastal flooding. It is also a statutory consultee for flood risk matters in planning applications and is the regulatory authority for reservoirs.

(b) a lead local flood authority,

In Westmorland and Furness, this is Westmorland and Furness Council.

The FWMA gives LLFAs powers and duties for the strategic overview of local flooding and for some flood-risk management functions. These include:

- Duty to investigate flooding;
- Duty to maintain a register of structures and features which have an impact on flood risk;
- Powers to regulate ordinary watercourses;
- Role to promote sustainable drainage.

A full summary of the duties and powers afforded to LLFAs under the Act is provided in Annex C. How these powers and duties are exercised, and other functions we consider important to deliver our role as LLFA, is set out in 'LLFA Duties under the Act'.

LLFAs are responsible for the prioritisation, funding and provision of local flood alleviation schemes based on risk. They will go through the Regional Flood and Coastal Committee (RFCC – see Annex A) funding approval process. The Act does not provide W&FC, or the other RMAs, with the mandate or funding to tackle all identified causes of flooding.

W&FC is a Category 1 Responder under the Civil Contingencies Act 2004 and is responsible for the preparation of contingency plans that detail how all emergency responders will respond to a disaster or major incident in Westmorland and Furness, including flooding. As part of this role, W&FC coordinates the preparation of multi-agency flood plans for each district and borough in the county and provides details of how to manage flooding incidents.

W&FC is the planning authority for minerals and waste and for schools, roads, libraries and other developments promoted by the Council. W&FC has a duty to ensure that flood risk is taken into account in the planning of such developments.

W&FC is a statutory consultee on major planning applications received by the Districts and on District Local Plans. In two-tier authority areas such as Westmorland and Furness, the Coalition Government's National Planning Policy Framework (NPPF) requires Local Authorities to work together to identify and plan for the delivery of necessary infrastructure required to support the growth ambitions in the District Local Plans. This means that the Unitary Council has a fundamental role as an infrastructure provider to input into the District Local Plan process. The assessment of flood risk and its mitigation is therefore an important infrastructure aspect to consider as part of the District Local Plan preparation, and the Unitary Council includes flood risk as part of the matters when responding to such consultations.

(c) a district council for an area for which there is no unitary authority.

District and borough councils have local planning authority (LPA) responsibilities. They have powers to adopt and maintain ordinary watercourses within their district. Where they exist within a LLFA area, district councils retain responsibilities for delivery of flood risk management on ordinary watercourses through permissive powers.

If they have a coastline, districts may also have responsibility for managing the risk of coastal erosion. As a coastal authority they have a responsibility for planning coastal erosion risk management schemes and contributing to shoreline management plans. Local authorities remain the lead for coastal erosion but EA will oversee it.

In Westmorland and Furness there are no second tier/district councils as it is now a unitary council;

(d) an internal drainage board.

There are no internal drainage boards in Westmorland and Furness. However, there are moves to form boards in one area in Westmorland and Furness: Lyth Valley. Negotiations are still on going.

(e) a water company.

Sewerage Undertakers are responsible for the public sewer system and as such are responsible for managing the risks of flooding from surface water, foul or combined sewer systems.

The Act states that water companies only have to have regard to local strategies, other RMAs have to act in a manner which is consistent with local strategies.

In Westmorland and Furness, the RMA is United Utilities.

(f) a highway authority.

In Westmorland and Furness this is: -

- The Highways Agency for trunk roads and motorways;
- W&FC for all other highways.

All of the above have lead responsibility for providing and managing public highways, including drainage under the Section 1 of the Highways Act 1980.

Tabel 1 - Role of RMAs in WFC

Flood Source	EA	LLFA	Unitary	UU	Highways Authority
Main River	Yes	No	No	No	No
The Sea	Yes	No	No	No	No
Surface Water	No	Yes	Yes	No	No
Highway Surface Water	No	No	No	No	Yes
Sewer Flooding	No	No	No	Yes	No
Ordinsry Watercourse	No	Yes	Yes	No	No
Ground Water	No	Yes	No	No	No
Reserviours	Yes	No	Yes	No	No
Coastal erosion	Yes	No	Yes	No	No

Table 1 above shows which RMAs have the powers to do something about flooding from a particular source. Permissive power is not a responsibility to 'do' something. It must be economically sound and affordable.

Annex A gives an overview of partnerships and governance arrangements that some or all risk management authorities are involved in working together to deliver flood risk management functions.

Partnership working to deliver the Local Flood Risk Management Strategy

Risk management authorities have a duty to cooperate (i.e. a need to partner) with one another in undertaking flood risk management functions. This is a key requirement of the FWMA.

Through cooperation organisations and individuals can achieve more effective results than they could achieve through working alone. Cooperation requires trust, good communication, sharing information and resources, and an improved understanding of the mutual benefits it can bring. Cooperation respects the interests of those concerned, while at the same time promoting the wider interests of the group and its stakeholders. Such cultures are key to the successful operation of the Cumbria LLFA Strategic Partnership, Working and Making Space for Water Groups (MSfWGs).

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. Table D.1 in the LFRMS Action Plan (Annex D) outlines the legislative duties that can be shared between RMAs through the MSfWGs.

This section introduces the wider scope of partnership working and how the RMAs are involved.

Who are our partners?

This Strategy has discussed the principle of the LLFA working closely with flood RMAs across Westmorland and Furness, but partnership working extends beyond relationships with statutory bodies. It can include any organisation or individual with an interest in flood risk management.

Such groups and organisations are not designated as risk management authorities, although they may still have a role to play in the management of flood risk. Some of the partners we work with frequently are described here.

Parish and Town Councils; residents associations; community groups

Parish and Town Councils and residents associations are involved in managing local issues that may include local flooding problems. They can be a source of local information about flood risks and know which areas are prone to flooding, particularly local flooding incidents that may not be recorded by other authorities.

These organisations also have a consultation role in local planning applications and can influence how local developments are delivered. Often the organisations assist in the running of Flood Action Groups (FLAGs) or Community Action Groups (CAGs).

The operation of a CAG provides a community focus for events of any kind that could affect them and how they could help locally in any type of emergency. Having a plan that encompasses all considerable threats should be the aim of all community groups.

FLAGs and CAGs are vital partners to the LLFA and in addition to these there are other community led groups that have been set up across Westmorland and Furness and should be integrated into the consultation process. Collectively some have formed the Northern Flood Action Group. Experiences in investigating flood events in Westmorland and Furness have shown the LLFA that to reduce the risks to communities we need to work together. We need to understand the detail of flooding experienced to collectively develop solutions for to tackle the threats.

Private individuals and land owners

Riparian landowners are those who own land adjoining a watercourse. As detailed within the EA document 'Living on the Edge', riparian landowners have certain rights and responsibilities, including the following:

- They must maintain the bed and banks of the watercourse, and also the trees and shrubs growing on the banks;
- They must clear any debris, even if it did not originate from their land. This debris may be natural or man-made;
- They must keep any structures that they own clear of debris. These structures include culverts, trash screens, weirs and mill gates;
- If they do not carry out their responsibilities, they could face legal action.

Riparian landowners must understand and act upon these responsibilities. They must be aware that any works in, over, under or within 8 metres of main rivers and works, which might impact on the flow of an ordinary watercourse, may require formal consent from the EA for main rivers and from the LLFA for ordinary watercourses under the LDA 1991, WRA 1991 and associated Northwest Regional Byelaws. They must not carry out work without consent. If they do, the relevant RMA could reclaim from them the cost of removing, altering or pulling down works. Similarly, if structures that have fallen into and are blocking the watercourse, are not removed it is possible, then the LLFA may wish to use its newly acquired enforcement powers in order to serve notice on the owner of the structure to remove them. In the event that the owner is served notice for removal of the structure, but fails to do so, the LLFA may remove the structure and charge the owner for the cost of undertaking the work.

Outside towns and villages, large areas of Westmorland and Furness are farmed, meaning the management of agricultural land has a significant impact on the runoff from rainstorm events. It is important that farmers understand how agricultural practice can affect flooding and bodies of water downstream. Westmorland and Furness LLFA is working closely with Catchment Officers from the EA, the Cumbria Peat Partnership, Catchment Sensitive Farming Officers from Natural England, Wildlife Trusts and the three rivers trusts in the county. Raising awareness of these issues and building partnerships with the farming community aims to encourage initiatives to reduce flood risk and serve objectives and targets under the Water Framework Directive 2000.

Developers

Building sustainability into developments is a learning process for all those involved and the benefits this can provide for the Westmorland and Furness economy. There is increasing demands on developers and the regulatory authorities charged with implementing legislation controlling development to be innovative and explore new sustainable design philosophies. Westmorland and Furness Council as LLFA will share this journey with developers working in the county, focussing on opportunities to reduce flood risk in development proposals. We will liaise with them regularly either as individual organisations or through the Cumbria Housebuilders Group.

Neighbouring lead local flood authorities

Westmorland and Furness borders with other lead local flood authorities. Cumberland Unitary Council, Northumberland County Council, Durham County Council North Yorkshire County Council and Lancashire County Council are all LLFAs that share a border with Westmorland and Furness. Along these borders flood risks may arise from land that is in another authority. W&FC will work with these authorities to coordinate flood risk management across our borders.

Residents

Residents who are aware that they are at risk of flooding should take action to ensure that they and their properties are protected.

Community resilience is important in providing information and support to each other if flooding is anticipated. Actions taken can include temporary ones such as laying sandbags and moving valuable items to higher ground and more permanent measures such as installing floodgates, raising electrical sockets and fitting non-return valves on pipes. Anyone affected by flooding should try to document as much information about the incident as possible. Westmorland and Furness LLFA and other RMAs are dependent on the 'first hand' accounts received from those who witness flood events. This information is crucial to building knowledge on flood mechanisms and developing effective solutions to reduce the probability of flooding happening again. FLAGs and CAGs present an opportunity for dialogue and agreement amongst residents on flooding experiences. This is an efficient means of collating data by the LLFA rather than fragmented and conflicting information sourced from individual residents.

Rivers and wildlife trusts.

Westmorland and Furness LLFA is already engaging with a wide range of partners in response to catchment based planning. These include the seven rivers trusts working in the county;

- Eden Rivers Trust
- West Cumbria Rivers Trust
- South Cumbria Rivers Trust
- Tyne Rivers Trust
- Lune Rivers Trust
- Tees Rivers Trust

The six in England have been appointed by DEFRA to be 'catchment hosts' to lead on a community approaches with this work. Cumbria Wildlife Trust has also been involved with community work across Westmorland and Furness in collaboration with Westmorland and Furness LLFA.

Objectives of managing local flood risk

Local flooding risks in Westmorland and Furness are substantial. Many are not well understood and responsibilities for managing them are spread across a number of risk management authorities. It is important to have clear objectives to manage local flooding in order that the risks can be understood. They can be managed in a coordinated way when it is clear who is responsible. This will ensure that the available resources are directed towards the most effective solutions to reduce flood risk.

This section sets out the local flood risk management objectives and explains the supporting principles from the relevant documents that helped to shape them.

The following LFRMS objectives have been developed to be consistent with the National Flood and Coastal Erosion Risk Management Strategy and the Cumbria County Council Plan 2018-2022, as discussed in the section 'Supporting Documentation', and to address the needs of local flood risk in Westmorland and Furness.

Proposed actions that emerge from these objectives are set out in 'Measures Supporting LFRMS'. All RMAs are required by the FWMA to work together to help to deliver these shared objectives.

The Objectives

The 'Policy objectives (P#)' of this strategy form the policies for the LLFA in Westmorland and Furness.

(P1). Reduction in flood risk to the people of Westmorland and Furness

Flooding causes social, economic and environmental devastation. The central objective of flood risk management should be to reduce the risk of flooding wherever possible.

This does not always mean constructing formal flood defence schemes. Maintenance of existing assets can be a very cost effective and a sustainable way to manage flood risk. Improvement works can include small interventions which result in a significant reduction in the likelihood or consequences of a flood, but may not remove the risk altogether.

The coordination of maintenance and flood risk management activities between risk management authorities within a catchment is important in ensuring that flood risk is being managed in a holistic and cost-effective way.

Flood risk management should focus on the highest risk areas, be proportionate, cost-effective, sensitive of the needs of the local community and seek multiple benefits. Local communities should be involved in the development of flood mitigation actions and encouraged to help fund them.

(P2). Increased knowledge and awareness of the factors affecting flood risk across Westmorland and Furness

For effective flood risk management, local flooding information needs to be researched and collated. RMAs can then use this developing resource to prioritise areas and investigate solutions to manage flood risk.

Information on local flooding has been unreliable and availability of data on historic local flooding is patchy in some parts of the county. It reflects the emphasis made on the more life-threatening flood risk from rivers and the sea that have been the focus of flood risk management in the past two decades and of the fragmented responsibilities for local flooding amongst several risk management authorities. Detailed information is available for some communities but there is still more data and facts to collect and analyse. Considerable progress has been made through the production of a Cumbria SWMP and the works carried out by the EA with surface water mapping.

To facilitate robust planning for local flood risks and allocate flood risk management resources effectively, better data needs to be gathered about the history of flooding and the predicted risks that is consistent, reliable and available to all risk management authorities.

(P3). Ensure that flood risk management is integrated within the planning process in Westmorland and Furness

The best way to prevent flood risk from increasing is to avoid development in areas of existing flood risk where possible and to manage runoff sustainably. Managing developments to reduce future flood risks is cost effective. Every development that is constructed to be resilient from flooding now, is one less development that will be flooded in the future.

Development in areas at risk of flooding cannot always be avoided, especially as many urban areas in Westmorland and Furness are at risk of flooding and it is appropriate to develop and regenerate these areas. Such development should be justified and sensitive to the risk of flooding as required by planning policy, and mitigation sought where there is a risk of flooding in line with the advice contained in the National Planning Policy Framework, in order to make the development acceptable in planning terms.

Sustainable development helps to provide homes and communities that are pleasant places to live and work where flood risk is well managed and enhance the surrounding communities and environments. Developments have an important role in taking opportunities, according to Local Plan green infrastructure and biodiversity policies, to manage the water retained on, and flowing through development sites, creating, protecting and enhancing natural habitat.

(P4). Facilitate close partnership working between all risk management authorities

Much has been achieved in formalising partnership working arrangements between RMAs in Westmorland and Furness since W&FC became a LLFA under the FWMA. MSfWGs were already exemplar working groups and their status has been enhanced by the role they now play in the Westmorland and Furness LLFA governance arrangements described earlier in this Strategy. Partnership working is central to these arrangements. The EA provides considerable support to the LLFA to carry out its strategic overview of local flood risk in Westmorland and Furness. The two bodies continue to work closely to further develop the opportunities for partnership working between RMAs.

(P5). Improve Community Resilience through awareness of flood risk

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 LLFA) with responsibility for co-ordination and leadership at a local level, and for a single body with oversight nationally (the EA). 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.

There are already many Flood Action Groups across Westmorland and Furness. Many of these have already achieved varying levels of democratic structure and accountability. W&FC and the EA will promote the formation and development of these groups whilst encouraging clear Terms of Reference and financial independence. FLAGs can be sub-groups of Community Action Groups working with Parish and Town Councils, Residents Associations, Neighbourhood Forums or may evolve simply from collective community action. These groups are important to LLFA as they are autonomous groups representing communities affected by flooding. They present an effective and sustainable mechanism for W&FC and other RMAs to communicate with communities at risk of flooding.

There is a need to promote two-way dialogue between the LLFA and the FLAG community to achieve progress in the following areas to reduce flood risk;

- Flood investigation information;
- Local knowledge on how flooding occurs, why where and how often;
- Community involvement on what flood defence and protection measures are viable and sustainable;
- Raising community funding to contribute to the cost of those flood defence and protection measures;
- Advice on how individuals can protect themselves from flooding; develop community preparedness;
- Development of a community resilience plan.

This policy seeks to establish communities in action as a major contributor to flood risk management across Westmorland and Furness.

Supporting documents

The following documents set out guiding principles that have been used to develop the objectives for this strategy and determine how they will be delivered.

Cumbria County Council Plan 2018 - 2022

The 3 Outcomes of the Plan are:

People in Westmorland and Furness are healthy and safe

Being healthy and safe is the foundation for wellbeing and pursuing aspirations. We want people to have access to the information and the tools to help keep themselves safe and as healthy as possible for as long as possible. We want our children, young people and vulnerable adults to be protected from harm and be given the support they need to achieve their ambitions. When people do need specialist or emergency help, they should receive it. So, for example, when someone needs extra help at home, or to move to supported housing, or emergency help in case of flooding.

Places in Westmorland and Furness are well-connected and thriving

Connecting people and places is important to wellbeing and thriving communities. In the 21st century, social and digital connections are as important as physical connections. Maintaining and improving our road and rail infrastructure and transport services is important to enable people to access work, learning and business opportunities to fulfil their ambitions. Better digital connections via online and mobile channels across the county are needed now and will be even more vital in the future. Social connections between people in communities and between communities are maybe even more important today. As the demands on existing public services increase and budgets reduce, the ability of communities to design and deliver their own solutions on their own or jointly with organisations to meet their own particular needs will be increasingly vital to creating thriving communities.

The economy in Westmorland and Furness is growing and benefits everyone

A growing and productive economy is important for the county to thrive; however, just as important is that everyone in Westmorland and Furness has the opportunity to benefit from economic growth. This means that good quality education and learning opportunities are open to all and people have access to the support they need to maximise their potential. It also means that everybody should have the opportunity to secure a good job and businesses across Westmorland and Furness can be successful. To achieve these things, the county needs to attract investment to create new and good quality business and employment opportunities, as well as new homes.

National Flood and Coastal Erosion Risk Management Strategy

The EA Strategy sets out practical measures to be implemented by risk management authorities, partners and communities, which will contribute to longer term delivery objectives.

The Strategy has three core ambitions concerning future risk and investment needs;

1. Climate resilient places: working with partners to bolster resilience to flooding and coastal change across the nation, both now and in the face of climate change
2. Today's growth and infrastructure resilient in tomorrow's climate: Making the right investment and planning decisions to secure sustainable growth and environmental improvements, as well as resilient infrastructure.
3. A nation ready to respond and adapt to flooding and coastal change: Ensuring local people understand their risk to flooding and coastal change, and know their responsibilities and how to take action.

Measures supporting the Westmorland and Furness Local Flood Risk Management Strategy

This section sets out how W&FC will exercise the powers and duties that we have as a LLFA under the FWMA and how we will undertake risk management activities that will help to deliver the objectives of this strategy and perform the role of providing a strategic overview of local flooding. The section is in 3 parts:

- The development our 2nd SWMP, how it assessed flood risk in detail across Westmorland and Furness and the Action Plan it produced. The impacts of climate change are also discussed.
- The measures we will deliver to fulfil our duties under the FWMA and how partnership working is central to the approach. A summary of LLFA duties under the Act is provided in Annex C.
- Developing partnerships to deliver the policy objectives of this Strategy in the context of the wide ranging requirements of the Act and the ethos of the Pitt Review 2008.

Risk Assessment

Westmorland and Furness SWMP

This measure serves Policy Objectives P1, P2, P3, P4 and P5. It describes the assessment of local flood risk for the purpose of this Strategy as required by Section 9(4)(g) of the Act.

The SWMP was designed to identify which parts of the county are at greatest risk of flooding from surface water and to establish a strategy to manage those risks best. A key output of the SWMP was an Action Plan and it has been incorporated into the Action Plan for this Strategy as discussed in the section 'Local Flood Risk Management Strategy Action Plan.

A platform for future and continuing review of surface water flood risk across the county is provided. Annex B contains a summary of the Plan.

Impacts of climate change

This measure serves Policy Objectives P1, P2, P3, P4 and P5. It should be considered alongside the flood risk assesment measures of the SWMP in the section 'Westmorland and Furness SWMP' above. A review of the current knowledge of climate change and how it could affect Westmorland and Furness is also contained in Annex B.

LLFA Duties under the Act

These are summarised with additional details in Annex C.

S.19 Flood investigations

This LLFA duty serves Policy Objectives P1, P2, P4 and P5. A LLFA is required to investigate a flood in its area.

Determination of the 'extent' of flood investigation is decided by the LLFA. It is not practical or realistic for W&FC to carry out a detailed investigation into every flood incident that occurs in Westmorland and Furness, but every incident with basic details will be recorded by the LLFA and the results of these investigations will be published.

A process has been developed by the LLFA to produce and publish 3 types of report following a flood incident. This has been designed to increase knowledge and awareness of flooding both in the community and across RMAs. The process specifies the involvement of all RMAs and what the LLFA will do to achieve the following;

- Capture flood information from the incident, flood mechanisms from previous events and related flood details remote from the site via conversations with those affected and Flood Forums etc.
- Ensure that a report is made available to the RMAs and those affected, agreed by all;
- Ensure recommended actions, agreed by all, are identified and realistic solutions are pursued and monitored to reduce future flood risk; These commonly include improvements to highway drainage, funding bids for studies and works and liaising with landowners to develop and implement solutions;
- Deliver flood investigation reports to the public in an open and consistent manner across the county;
- Maintain contact with communities that have suffered flooding to update investigation information and work together to identify potential solutions through the local MSfWG.

This process provides a firm platform for flood investigation and engaging with the communities affected to develop flood defence schemes in order to reduce future flood risk. It mirrors a process already established by the EA which continues to report on flood incidents from main rivers and the coast.

Recording, registering and designating structures and features that have a significant impact on flood risk

This LLFA duty serves Policy Objectives P1, P2, P4 and P5.

Registration
Westmorland and Furness LLFA has a duty to maintain a register of features and structures that in the opinion of the authority are likely to have a 'significant' effect on a local flood risk in its area; S.21 of the FWMA. The register must be available to the public at reasonable times. The purpose of the register is to allow for quicker identification of the responsible authority in incidences of flooding and to identify who is responsible for maintenance of assets. The sorts of structures and features that are likely to be included in the register include trash screens, weirs, sluice gates, manmade watercourses etc., which if they were to fail might cause flooding.

W&FC also has a duty to maintain a record of structures and features that will contain the ownership details of the structures and features in the register. The record does not have to be made available to the public. When flooding occurs as a result of mechanisms attributed to any registered or recorded structure and feature, the organisation, individual or authority for it, including maintenance can be identified.

Designation
Under Schedule 1 of the Act, RMAs have the power to designate third party structures and features that in the opinion of the authority perform a flood defence role. Once designated these structures and features cannot be altered or removed without the permission of the designating authority. The owners of the structure or feature will be notified that it has been designated and will have the right to appeal. The designated features will also be listed on the register.

Asset management
Continued monitoring and maintenance of flood risk management infrastructure is essential to reduce the risk of flooding. A renewed focus by all RMAs on improving the management of their assets is required whilst sharing this information with other RMAs.

W&FC will work with RMAs to develop an integrated drainage asset management strategy for the council, which will include the register of assets and agreement between all relevant partners as to how these will be managed.

Consenting works on ordinary watercourses

This LLFA duty serves Policy Objectives P1, P2, P3, P4 and P5.

The Act has transferred existing powers to regulate the proper function of ordinary watercourses to the LLFA. These powers consist of two parts;

- The power to give consent for structures in the watercourse and changes to the alignment of the watercourse.
- The enforcement obligations to maintain flow in a watercourse and repair watercourses, bridges and other structures in a watercourse.

The EA carry out similar powers for main rivers and was responsible for consenting works on ordinary watercourses prior to the LLFA. Consenting started in April 2012 for Cumbria County Council's LLFA. 59 ordinary watercourse flood defence consents were provided by the LLFA in 2012 and 129 in 2013.

Drainage approval and adoption of SuDS

This LLFA duty serves Policy Objectives P1, P2, P3 and P5.

Government has recently consulted on the proposals contained within Schedule 3 of the Act. This requires Sustainable Drainage Systems (SuDS) to be used in new developments as an effective means of reducing flood risk. Under the current proposals, drainage will be a material consideration for LPAs and the LLFA will become a Statutory Consultee in the planning process.

SuDS are a means of managing surface water runoff, using and mimicking natural processes, so that the volume and flow rate of water from developments is similar to undeveloped land. SuDS are an effective means of preventing or mitigating local flooding by managing the amount of surface water runoff. Additionally, they can provide water quality improvements, open space, public amenity and wildlife habitat benefits.

The Pitt Review into the summer 2007 floods proposed that the Government find a way to increase the use of SuDS. The lack of defined responsibility for the adoption of SuDS was identified as a barrier to their development and implementation.

As of February 2015, the relevant parts of the Act have not yet been implemented. The Government has reconsulted on the national standards for SuDS, however the role of Suds Approval Body has once more been raised by Defra regrading a future introduction but as yet no dates of approval have been agreed. Thus, it is not yet fully clear how Westmorland and Furness LLFA will deliver this role, but W&FC is adapting and organising its LFRM resources in preparation for the anticipated duties. W&FC's position on SuDS is as follows:

- Westmorland and Furness LLFA will prepare for its role as the drainage Statutory Consultee by developing protocols for the approved processes anticipated;
- Westmorland and Furness LLFA will publish local guidance on SuDS requirements. A design guidance manual is being drafted which includes proposed SuDS design guidance approval and adoption processes to be put in place once the SAB role commences;
- Westmorland and Furness LLFA will actively promote SuDS principles for new developments to reduce flood events in the locality.
- Westmorland and Furness LLFA will continue to develop relationships with the 9 LPAs in the county to further understand the implications for all parties when the SAB role commences. SAB and Planning Approval processes will run concurrently and it will be essential for each LPA and the SAB to work closely together.

Scrutiny

This LLFA duty serves Policy Objectives P2, P3, P4 and P5.

The Act requires LLFAs to ensure that adequate scrutiny arrangements are put in place (Schedule 2, s.54). The arrangements required under section 21(2) of the Local Government Act 2000 include arrangements to review and scrutinise how RMAs exercise flood risk management functions or coastal erosion risk management functions which may affect the local authority's area. A RMA must comply with a request made by an overview and scrutiny committee for information and/or a response to a report.

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 request information or a response to a question, with the further provision that RMAs must have regard to the reports and recommendations of the Committee.

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

W&FC's LFRM activities are reviewed quarterly by the Council's Scrutiny Board. A Special Task Group held a series of meetings in Summer 2013 to examine the delivery of flood investigation reports for communities affected by flooding in 2012.

Quarterly reports on Westmorland and Furness LLFA performance of duties under the Act are issued quarterly to the Joint Scrutiny Board for Communities and Places and the North West RFCC.

S.14 Information sharing

This LLFA duty serves Policy Objectives P1, P2, P4 and P5.

A stated requirement of the Act is for all RMAs to share information on flooding. The LLFA has powers to monitor the response of individual RMAs to requests for such information from other parties. This will assist all RMAs in the prediction of flood risk, take action to reduce it and inform the development of flood defence schemes.

Westmorland and Furness LLFA, the EA and all the RMAs already share a considerable amount of data and information on flood risk management. This is essential for the effective operation of the MSfWGs and a key requirement for ensuring that flood risk management is integrated within the planning process in Westmorland and Furness. Westmorland and Furness LLFA has set-up a business collaboration website where all RMAs can gain access to local flood risk information such as flood investigation reports, MSfWG proceedings and flood enquiries.

S.27 Sustainable development

RMAs are required 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. Sustainable development is one of the six guiding principles of the National Flood and Coastal Erosion Risk Management Strategy and the coalition government's National Planning Policy Framework.

Wider partnership working

This section examines how partnerships are developing to deliver all the policy objectives of this Strategy in the context of the wide ranging requirements of the Act and the ethos of the Pitt Review 2008.

There are a number of opportunities to be explored in developing an integrated flood risk management service shared between RMAs. Such approaches include;

- Developing a central database of information data accessible by all RMAs;
- Exploration of the potential for delegation of LLFA duties to local RMAs with Terms of Reference;
- Exploration of the potential for RMAs to share resources/secondments between authorities in flood risk management activities.

Close partnership working with RMAs should have the objective of reducing local flood risk by using local resources and knowledge. The LLFA will take the lead, but for effective local flood risk management delivery it will be essential to use the resources of RMAs placed locally across the county.

It is essential that RMAs work together to present achieving a seamless LFRM service for the public.

Coordinated flood risk planning and delivery

Flood risk mitigation should be planned within a long term context providing transparency of how the risks will be managed and by whom. All relevant studies and plans that relate to flooding should be considered and relevant partners involved ensuring that all risks can be considered. Adopting this approach, opportunities for multiple benefits can be identified, for instance including amenity space or providing habitat for wildlife.

Planning flood management schemes will include the local community to ensure that they understand the risks and what their role will be in managing them.

MSfWGs make a significant contribution to the development of schemes and associated funding bids within their areas. These can originate from flood investigations and the MSfWG 'hotspots' list.

Measures discussed by the MSfWGs will broadly fall into one of three categories to be taken forward;

1. A strong case for FCERM GiA funding for a range of solutions has been identified and is entered on to the EA Medium Term Plan (MTP);
2. One RMA is largely responsible for resolving the flooding problem and proceeds to do so under its own investment programme
3. No immediate solution path and/or no funding for reducing flood risk is identified, then the problem remains with the MSfWG for continued consideration.

At a more strategic level, Westmorland and Furness LLFA is promoting the development of planning partnerships to coordinate the flood defence investment plans of the EA, UU, LLFA in the context of development planning led by LPAs.

Seeking multiple benefits through these improves the potential success of funding bids when considered by the RFCC, DEFRA and other funding bodies.

Tackling future flood risk through the planning process

We need to raise the profile of the long term consequences of not giving adequate consideration to development control and planning. Managing developments to reduce future flood risk is cost effective. Every development that is constructed to be resilient from flooding now, is one less development that will flood in the future.

Planning authorities have to undertake Strategic Flood Risk Assessments (SFRAs) as a requirement of the NPPF to assess the effect of proposed developments on flood risk. These assessments should include a thorough assessment of all flood risks. However historically they have often focussed on fluvial and coastal flood risks and not adequately dealt with local flooding.

In undertaking SFRAs, making planning policy and planning decisions, planning authorities should consult with the EA, the LLFA and emergency responders as appropriate.

Throughout the development of the SWMP it was particularly important to incorporate the LPAs (including two National Parks). The LPAs have been developing preferred options for their Core Strategies and Local Plans. Flood risk is taken into account when developing options, but their assessment of risk has predominantly been reliant on EA Flood Zones. The NPPF clearly states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Recent surface water mapping and historic flooding information available from the EA provides new layers of data available to LPAs. Each of the LPAs have been consulted and given recommendations regarding their future development plans. The information developed in the SWMP can be used for future development planning and flood risk assessments. The SWMP Action Plan (incorporated into the Action Plan of this Strategy) involves recommendations for LPAs specific to 'Wet Areas'.

It was important to give the clear message to the LPAs, that areas at risk of surface water flooding can often be managed within regeneration, allowing development to go ahead. W&FC's Planning Obligations Policy outlines the expectations on developers to make contributions secured through Section 106, (Town & Country Planning Act) Agreements. Contributions may be sought to help ensure appropriate surface water management is in place and to ensure that the negative effects of a development are mitigated by necessary flood alleviation schemes.

However, some locations have drainage systems that are at capacity with low infiltration ground conditions and few options for managing the risk. In these locations, large green space needs will be sought to be allocated within the plans (for strategic SuDS) or a reconsideration of the proposed development area.

Westmorland and Furness Council currently responds to a wide range of planning application consultations generally, including large-scale developments and Local Plan consultations. These are the responsibility of the Spatial Planning Team to coordinate strategic corporate responses to the LPAs as a statutory planning consultee under the Planning & Compulsory Purchase Act 2004. Local flood risk is a major consideration for the Council as LLFA, but until Schedule 3 of the FWMA is commenced (SAB status) consultation responses discussing these matters are made on a non-statutory basis.

W&FC as LLFA will lead on developing the partnerships necessary to facilitate an integrated approach with RMAs to capture the following information to inform LPAs on strategic planning decisions;

- Flood defence investment plans from the EA;
- Flood defence investment plans from the LLFA;
- Surface water flooding information from the LLFA;
- Asset management plans and drainage strategies from UU.

This is likely to be a complex process given the differing organisational cultures, funding mechanisms and capital project approval processes that exist within these organisations. However a shared vision has been declared by them for working together to reduce flood risk. It is essential that any formalised partnership working groups that arise from these identified needs agree terms of reference and communications plans. This LFRMS is intended to provide a key sources in Local Plan making and used as a guide for making planning application decisions.

Availability of resources will be a key issue here and 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.

Tackling existing flood risk through the planning process

Close working with LPAs will be further developed to involve planning officers in the MSfWGs. This will seek to increase the awareness of current flooding issues being tackled by the groups. Solutions to reduce flood risk and ensure existing problems are not made worse will be sought through the planning process.

Wider catchment management

The whole catchment approach seeks to slow down water flows through the catchment to reduce flood events and to also combat periods of drought. Given the needs of our agriculture and towns where can this best be done?

Upland moorlands need to hold water for longer, which requires good soil and vegetation management. Peat habitats are required to function well with a minimum of drainage and complete vegetation cover. Upland heathlands and grasslands should be grazed at levels that promote soil and vegetation protection, interspersed with scrub and woodlands which can intercept and hold water in the upland systems. Rush pastures, fens and other wetlands need to be protected and enhanced.

With enhanced upland, or up-catchment, management, drainage into our streams will be slowed down; these streams still need to be actively considered and allowed to flood where possible. Again, the soils of woodlands planted in association with small streams will hold more water than cleared land, and therefore reduce run-off.

River flood plains should be able to act as flood plains, where flooding, kept to a minimum by upstream land management, can be held within the flood plain, possibly enhanced by creation of holding areas which can temporarily fill and drop their water over time, and active river restoration projects for canalised watercourses.

The Westmorland and Furness LLFA will work closely with partners to increase the capacity of the land to store water and slow the flow of water into river channels through the restoration of natural habitats. We will work to source funding for restoration of peatlands identified as a priority by the Cumbria Peat Partnership.

A number of Rivers Trusts have been appointed 'Catchment Hosts' to oversee the implementation of these approaches, driven by the catchment based policy and planning background discussed in the section 'Partnership working to deliver the Local Flood Risk Management Strategy'. Within each catchment, achieving WFD objectives requires engagement with a wide range of partners. Westmorland and Furness LLFA will work in partnership with the host organisations and Catchment Officers from the EA to embed a catchment based strategic approach to local flood risk management in Westmorland and Furness.

Communication

Each RMA should make clear how they intend to carry out their functions. The information provided should include the area and features they have responsibility for, details of routine maintenance, plans for improvement works, plans for new flood management measures and relevant contact details.

Members of the public are often unaware of which risk management authority can respond to a flooding problem. If the wrong authority is contacted, officers from that authority are encouraged to take the details and pass them on to the appropriate authority and let the customer know who is dealing with the matter. In this way members of the public need only contact one authority. UU, the EA, and the LLFA all have established contact lines to report flooding – See Appendix 3. All flooding issues, including details of flood incidents should be reported to the LLFA and/or the MSfWG.

Cooperation

All RMAs have a duty to cooperate and share information with another risk management authority that is exercising a risk management function, as required by sections 13 and 14 of the Act. Authorities must share information when requested in a timely manner. RMAs should identify how other authorities can cooperate with them to work towards good flood risk management.

Building trust

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".

Private land

Members of the public and land owners often assume that the responsibility for maintaining watercourses lies exclusively with a formal risk management authority. Even if an authority does undertake maintenance on a watercourse, this is only as a permissive power not a duty. Land owners adjacent to a watercourse are responsible for the maintenance of that watercourse. This is set out in the EA's guide: "Living on the Edge"

Surface water runoff from agricultural land

As discussed in 'Flooding characteristics.', many settlements in Westmorland and Furness are vulnerable to flooding from runoff from the steep high catchments above them, frequently containing vast areas of agricultural land and semi-natural habitat. W&FC will work closely with the National Farmers Union (NFU), the Rural Payments Agency (RPA) and land management specialists such as the Cumbria Peat Partnership and Cumbria Wildlife Trust, as well as the landowners themselves to restore habitats and identify solutions to reduce flood risk to these communities.

Working with communities

Promoting and working with FLAGs will increase the awareness of flood risk within the communities they serve and how resilience can be improved. Three key areas will be addressed;

- Informing the community about flood risk;
- How the community can benefit from flood warnings;
- How the community can recover from flooding.

W&FC, as LLFA, will use their Area Support Teams to develop these actions with new and existing FLAGs. It is likely that many local communities will identify other areas of vulnerability such as power cuts and loss of transport links following heavy snowfall. This may result in a FLAG extending its remit beyond flooding to become a Community Action Group (CAG). A resilience plan template for communities has been developed by the Cumbria LRF. Known as a '10-Step Plan', this will be used by CAGs to develop a resilience plan encompassing community engagement, training, emergency response and review. A Communication Plan will be developed for each established CAG.

W&FC, as LLFA, will use the resources available from the CRF to manage the development of the CAGs. The Forum has a Community Sub-Group which already coordinates resilience activities at a local level across the county. Action with Communities in Cumbria (ACT) and Cumbria Voluntary Services (CVS) make significant contributions to this work. Cumbria Community Messaging will provide a web-based platform for communication links with the emergency services and serve as a networking tool for the CAGs.

As each area is different with diverse resilience requirements, each CAG will develop a '10-Step Plan' reflecting different levels of involvement from RMAs. Some locations that have not experienced flooding in recent years could be identified as high risk, as the development of flood risk knowledge held by the LLFA becomes more extensive and sophisticated. Although this information would justify the development of CAGs in those locations, W&FC will prioritise those identified in the LFRMS Action Plan discussed in the next section.

Local Flood Risk Management Strategy Action Plan

The Local Flood Risk Management Strategy Action Plan identifies a programme of work for the LLFA along with potential sources of funding. It should be remembered that the Act requires LLFAs to investigate flooding and assess local flood risk. It provides no mandate for LLFAs to deliver solutions but requires them to work with partners to promote options for doing so.

How the LFRMS Action Plan has been developed

This strategy has identified two main areas of local flood risk management work for the Westmorland and Furness LLFA in Annex D:

- Table D.1 lists Flood risk management actions covering the whole of Westmorland and Furness;
- Table D.2 lists actions/measures that will be undertaken by the LLFA to reduce flood risk locally;
- Table D.3 lists those schemes that have secured a place on the EA Medium Term Plan, with timelines for implementation and costs;
- Table D.4 lists the flood 'Hotspots' by area across Westmorland and Furness managed by the MSfWGs as at March 2012.

Meeting the duties under the Act

Table D.1 is a list of actions that will be led by Westmorland and Furness LLFA to meet the objectives of the Act and the LFRMS and have countywide implications, or do not have specific local effects. Duties under the Act result in a continuous programme of work.

Wet Areas and local schemes

Table D.2 is a list of the actions that will be considered by partners to reduce flood risk locally. It also includes a review of Wet Areas and identifies schemes that could be introduced to address flood risk issues in these areas. These are taken from the SWMP Action Plan, schemes arising from flooding in 2012-13 and the Plan includes EA Main River and coastal scheme bids from June 2013. A description of the problems and issues for each flood risk location is provided along with recommendations, progress made and the partners involved. This table also identifies which schemes featured in the LLFA FCERM GiA bids placed in EA Medium Term Plan June 2013. Schemes will be prioritised according to the following criteria;

a. Flood risk;
b. Funding availability.

Flood 'Hotspots'

All flood incidents across the Unitary are review by the area MSfWGs. When an incident cannot be resolved by one of the RMAs represented on the group and further investigation is required, the flood location is recorded as a 'Hotspot'. Details of the Hotspot numbers by area, the prioritisation afforded to them and a link to web-based mapping are provided in Table D.4 in Annex D.

Flood risk management funding

It is the responsibility of the LFRM team of the Westmorland and Furness LLFA to ensure that the LFRMS Action Plan is implemented. Team funding comes from a DEFRA grant. Local schemes may receive funding from any of the following sources;

- FCERM GiA
- Local levy
- Water company (UU)
- Local Enterprise Partnership (LEP)
- Local Authority (County, District, Borough) Other RMAs and those directly benefiting
- Others

Defra grant

To support the delivery of the FWMA, DEFRA provides a grant to lead local flood authorities for the duration of the current spending review period (2021/2027) The grant is now part of the LUDCLG funding for Westmorland and Furness Council

Current funding is used by Westmorland and Furness LLFA to carry out its responsibilities under the Act (see Annex C). This includes staff costs for flood investigations, consenting works on ordinary watercourses and delivery of local schemes.

Flood & Coastal Risk Management Grant in Aid

Government grants will not fully fund all schemes, local contributions will have to be found for many schemes to proceed. This change provides an opportunity for local communities to have more influence on how flood defences are delivered in their communities. However, it also means that local communities may have to find funds to contribute to flood risk management schemes.

Flood defences and coastal erosion risk management schemes are funded from a government grant called Flood & Coastal Risk Management Grant in Aid (FCERM GiA) which is administered by the EA on behalf of DEFRA. Until recently schemes would receive full 'grant in aid' funding if they met a certain cost-benefit ratio, while schemes that did not achieve this ratio would receive no grant. Under this mechanism many schemes never achieved the required cost-benefit ratio and could never be delivered.

A new partnership funding calculator was introduced in April 2020 to determine what proportion of the cost of a scheme can be funded by 'grant in aid'. The change in the calculator included climate change and this allowed access to funding for properties that are vulnerable to flooding from 2040. Some schemes will be fully funded, others only partly funded, according to how much public benefit they will give, for example by reducing flood risk to homes and vital infrastructure. Any shortfall in the amount of 'grant in aid' required to construct a scheme will need to be found elsewhere. This could be from a local levy, local businesses, organisations or communities who will benefit from the scheme.

In this way all schemes can receive some 'grant in aid' so long as they can find the necessary partnership funds to cover the rest of the cost of the scheme. By requiring local contributions for many schemes, there will be more local involvement in determining how the schemes are developed.

More details about the 'grant in aid' scheme can be found on: **http://www.environment-agency.gov.uk/research/planning/134732.aspx**

Bids have been developed by Westmorland and Furness LLFA working with the EA for FCERM GiA funding for a number of local flood risk management schemes and a healthy programme has been developed with over 10 years of locations identified.

All of the bids submitted by the EA, LLFAs and other RMAs are part of the EA MTP which manages flood defence scheme development across the region. DEFRA funding for schemes identified in the MTP is dependent on the amounts set for flood defences within each 6-Year Spending Review or any additional spending identified for such purposes by the Government. Inclusion on the MTP does not guarantee scheme funding. There is strong competition for the funding available for flood defence schemes from the Government.

Westmorland and Furness LLFA continues to monitor the potential for a successful bid, as flood risk knowledge of each scheme grows and moves towards inclusion on the MTP. The full range of schemes where a bid for DEFRA funding has been made (and those to be monitored for potential funding over the next 6 years) is included in the LFRMS Action Plan in Table D.2 of Annex D.

Westmorland and Furness Council LLFA team now have strong programme and have identified through data collection and reporting numerous schemes.

In early February 2014 the EA confirmed the outcome of the previous bidding made in June 2013 for 2014/15. The Government announced that five schemes of the 21 proposed new schemes in the county have been successful in securing FCERM GiA this year.

Local Levy

The local levy is administered by the North West Region RFCC. The region's local levy is currently approximately £3.6m. W&FC currently makes a contribution to the local levy of approximately £300k annually. In recent years, Cumbria County Council has received nearly £900k from the levy raised in the north-west, spent largely by the EA on flood defence asset maintenance. This represents a good return for Cumbria of 200% on their local levy contribution.

The local levy can be distributed to flood defence schemes at the discretion of the RFCC. It is often used to fund locally important schemes, which would otherwise not receive funding, or to provide partnership contributions for 'grant in aid' funding.

14 schemes from the EA 6-year MTP programme will be assisted in their development by Local Levy funding from April 2015.

Water company (UU) planning

Water company investment in infrastructure they manage has to be agreed by the water company regulator, Ofwat. This is done on a five-year cycle called an Asset Management Plan (AMP) which runs from 2020 to 2025. AMP6 will begin in April 2020 and runs to March 2025. The work that water companies undertake in each AMP period is outlined in the plan they submit to Ofwat prior to each AMP period, this is called the 'periodic review'. The next periodic review submissions are being made this year.

Westmorland and Furness LLFA will work with Making Space for Water Groups (MSfWGs), UU and Northumberland Water Limited, to identify any opportunities to jointly fund projects, using all available funding sources, which will be put forward into the appropriate periodic review.

Local Enterprise Partnership (LEP)

LEP provides access to European funding, through the European Regional Development Fund. This includes the European Structural and Investment Strategy, potentially £5 million over the next 5 years for flood risks to key growth sites across Westmorland and Furness. This could be introduced through hard engineering and natural flood management; increasing catchment resilience to climate change; improving environmental and bathing water quality and drinking water supply to support other growth activity.

Running in parallel with the European Structural and Investment Fund is the Strategic Economic Plan - a 10-year plan which concentrates on delivering growth and development at a County, national and international level. From this Low Growth Fund could be utilised where new industry requires flood defence.

Other sources of funding

Any source of funding can be used as the partnership contribution within a 'grant in aid' scheme. There are a wide range of benefits to be achieved from flood risk management schemes, including helping to protect property, providing amenity space, wildlife habitat and more. These could provide sources of funding through local investment funds, new developments, habitat grants and from local landowners, who can contribute to the costs of flood risk management, e.g. from Natural England, a Farming and Forestry Schemes Grants Programme and Countryside Stewardship Scheme.

W&FC's Planning Obligations Policy outlines the expectations on developers to make contributions secured through Section 106, (Town & Country Planning Act) Agreements. Contributions may be sought to help ensure appropriate surface water management is in place and to ensure that the negative effects of a development are mitigated by necessary flood alleviation schemes.

Next steps

Implementing the Local Flood Risk Management Strategy Action Plan

The LFRMS Action Plan in Annex D will be updated annually with progress on previous actions noted and new actions that have been identified added. These details will be made available on W&FC's website.

Progress and continual review of the LFRMS will be standard agenda items for the Westmorland and Furness MSfWGs, Working Group and Cumbria LLFA Strategic Partnership meetings. In addition to this, Westmorland and Furness LLFA is required to report progress on how it is responding to the duties under the Act every quarter to the RFCC. The Committee is also considering formulating flood risk performance measures for LLFAs.

How and when the Strategy is to be reviewed

It is essential that this strategy is updated frequently to reflect the progress being made by the LLFA with its partners and the development of knowledge available for flood risk management in Westmorland and Furness. As such it will have the status of a 'living document', but formal consultation and approval by W&FC of future revisions will be made every 6 years. This has been programmed to adequately reflect revisions of other statutory documents closely associated with the strategy such as the National Strategy Flood and Coastal Erosion Risk Management, Catchment Flood Risk Management Plans and River Basin Management Plans.

SWMP development: A review of the Westmorland and Furness SWMP will precede and inform the formal strategy update; it will provide the technical appraisal required. SWMP Technical Guidance (DEFRA, March 2010) recommends a preparation – risk assessment – options – implementation and review cycle. The SWMP is not a standalone document. As a technical source informing this Strategy, it should be reviewed in the light of the progress made by the LLFA and updated accordingly to inform the next version of this Strategy. The latest generation of surface water mapping now available on the EA website already provides more accurate data than those produced in the SWMP.

The Westmorland and Furness PFRA will also be reviewed in line with the requirements of the Flood Risk Regulations 2017

The next Westmorland and Furness LFRMS to receive formal approval from W&FC will be published in 2027 following public consultation.

Appendix 1 References

'Be Prepared! 10 Steps to Complete your Community Emergency Plan' ("10 Step Plan"). Action with Communities in Cumbria. 2012.
http://www.cumbria.gov.uk/eLibrary/Content/Internet/535/615/6488/6490/41592114556.pdf

'Cumbria County Council Plan 2018-22.' http://www.cumbria.gov.uk/councilplan/2018/

'The Flood Risk (Cross Border Areas) Regulations 2010.'
http://www.legislation.gov.uk/uksi/2010/1102/contents/made

'Cumbria Surface Water Management Plan. Phase 3 Report'. Cumbria County Council. February 2013.

'Flood & Water Management Act 2010'.
http://www.legislation.gov.uk/ukpga/2010/29/contents

'The Highways Act 1980.' http://www.legislation.gov.uk/ukpga/1980/66/section/139

'Living On the Edge'. Environment Agency. 2014.
https://www.gov.uk/government/publications/riverside-ownership-rights-and-responsibilities

'Local Flood Risk Management Strategy'. Kent County Council. June 2013.
http://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planningpolicies/flooding-and-drainage-policies/kent-flood-risk-management-plan

'National Flood and Coastal Erosion Risk Management Strategy,' Environment Agency. 2011. Ref: ISBN 9780108510366, LIT 5618
https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-managementstrategy-for-england

'National Planning Policy Framework'. Department for Communities and Local Government. March 2012.
https://www.gov.uk/government/publications/national-planning-policy-framework--2

'The Pitt Review 2008'
http://webarchive.nationalarchives.gov.uk/20100807034701/http:/archive.cabinetoffice.gov.uk/pittreview/ thepittreview/final_report.html

'Planning Obligations Policy'. Cumbria County Council. September 2013.
http://www.cumbria.gov.uk/planning-environment/spatialplanning/contributions/Policy.asp

'A Practical Guide to the Strategic Environmental Assessment Directive'. Office of the Deputy Prime Minister. September 2005.
https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance

'Preliminary Flood Risk Assessment. Cumbria County Council Preliminary Assessment Report'. Cumbria County Council. June 2011.

'Preliminary Framework to assist the development of the Local Strategy for Flood Risk Management. A Living Document'. Local Government Association. February 2011.

Appendix 2 Glossary

ACT: Action with Communities in Cumbria

AMP: Asset Management Plan

CAGs: Community Action Groups

CRF: Community Resilience Forum

CVS: Cumbria Voluntary Services

DEFRA: Department for Environment, Food & Rural Affairs

EA: Environment Agency

FCERM GiA: Flood & Coastal Risk Management Grant in Aid

FLAGs: Flood Action Groups

FWMA: Flood and Water Management Act 2010

LEP: Local Enterprise Partnership

LLFAs: Lead Local Flood Authorities

LFRMS: Local Flood Risk Management Strategy

NFU: National Farmers Union

NPPF: National Planning Policy Framework

Ofwat: Water Services Regulation Authority

PFRA: Preliminary Flood Risk Assessment

RFCC: Regional Flood and Coastal Committee

RMAs: Risk Management Authorities

RPA: Rural Payments Agency

SAB: SuDS Approval Body

SuDS: Sustainable Drainage Systems

SWMP: Surface Water Management Plan

UU: United Utilities

W&FC: Westmorland and Furness Council

Appendix 3 Useful Information

To get advice about flooding:

Floodline: tel. **0845 988 1188/0345 988 1188.**

If in danger – ring **999**

Prepare for a flood and get help during and after

https://www.gov.uk/prepare-for-a-flood

To report a flood incident:

Environment Agency Incident hotline tel: **0800 80 70 60** (24hrs),

Westmorland and Furness Council' LLFA email: **LLFA@WestmorlandandFurness.gov.uk,**

http://www.cumbria.gov.uk/planning-environment/flooding/floodriskassessment.asp

Tel: **01228 221330**

Westmorland and Furness Council (Highways): **highways@WestmorlandandFurness.gov.uk**
Tel: **0845 609 6609**

United Utilities: tel: **0345 672 3723**

Northumbrian Water Limited (Alston area): **0345 717 1100**

Tel: **01900 702 702**

Tel. **01229 876543**

'Be Prepared! 10 Steps to Complete your Community Emergency Plan' ("10 Step Plan"). Action with Communities in Westmorland and Furness. 2012.

http://www.WestmorlandandFurness.gov.uk/eLibrary/Content/Internet/535/615/6488/6490/41592114556.pdf

'Living On the Edge'. Environment Agency. 2014.

https://www.gov.uk/government/publications/riverside-ownership-rights-and-responsibilities

'Westmorland and Furness Surface Water Management Plan. Phase 3 Report'. Westmorland and Furness County Council. February 2013.

Westmorland & Furness Council

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