



Flood Risk  
Management  
Strategy 2022  
**Summary**

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## Foreword

Cumbria has the highest land and highest rainfall in England and is bounded by the great tidal basins of Morecambe Bay in the south and the Solway Firth in the north. It perhaps comes as little surprise that flood events are frequent. My working life was spent with the County Fire & Rescue Service, so I'm well experienced in the dangers of flooding and the misery it brings to those directly affected. I'm also aware that such events have undoubtedly become more frequent over the past decade.

The Storm Desmond event of December 2015 and Storm Ciara events which affected much of Cumbria, had a lengthy recovery process at great cost and inconvenience. The Environment Agency has provided a magnificent response, which has led to significant flood defence works. Many recent events of this last few years illustrate to me all too well the need for effective flood risk management.

Following the introduction of the Flood and Water Management Act 2010, within the Highways & Transport service, the Local Flood Risk Management Team work with our partner organisations to not only investigate flood events, but also ensure the wide ranging duties of the Act are carried out effectively. I hope you find this Strategy useful.



**Cllr Keith Little**  
**Cumbria County**  
**Council's Cabinet**  
**Member of Highways**  
**and Transport**

# Executive Summary

Cumbria County Council, as its role in local flooding as Lead Local Flood Authority (LLFA) for Cumbria, is required to publish a Local Flood Risk Management Strategy to set out how local flood risks will be managed in the county, who will deliver them and how they might be funded.

This Strategy has not been developed solely by the County Council. It has been produced in collaboration with the Environment Agency, District and Borough Councils, United Utilities and other bodies. The County Council must take a lead in Cumbria on local flood risk management and this Strategy identifies how this will be done.

Partnership working is central to this Strategy. Flood risk management is a challenging area of work for the County Council.

The following are the Five Policy Objectives originally developed to serve this Strategy in 2015, and how they have been achieved: -

- 1. Reduction in flood risk to the people of Cumbria, ongoing work where we have completed 45 flood reduction schemes since 2015.**
- 2. Increased knowledge and awareness of the factors affecting flood risk across Cumbria, achieved by new surface water management plan and active section 19 reports.**
- 3. Ensure that flood risk management is integrated within the planning process in Cumbria, achieved by 2016 with merger of flood team into Development Management.**

- 4. Facilitate close partnership working between all risk management authorities, achieved through the Making Space for Water Groups (MSfWGs), Cumbria LLFA Strategic Partnership meetings and the North West Regional Flood and Coastal Committee.**

- 5. Improve Community Resilience through awareness of flood risk, achieved by developing a new approach to flooding through Flood Action Groups, Parish and Town Councils, Resident Associations and Flood Forums.**

These objectives also serve the priorities of the Council Plan 2018-22 and the guiding principles of the National Flood and Coastal Erosion Risk Management Strategy published by the Environment Agency.

The Local Flood Risk Management Strategy has an Action Plan that identifies a programme of work for reducing local flood risk within Cumbria.

Alongside the preparation of the draft Strategy the following supporting assessments have been carried out: -

- **Strategic Environmental Assessment**
- **Water Framework Directive Assessment**
- **Habitats Regulations Assessment Scoping & Screening Report**

All of the duties under the Act are being carried out by the appointed Flood & Development Management team within Economy and Infrastructure of the County Council.

# Introduction

Duties in the Flood & Water Management Act 2010 were key recommendations in the Pitt Review following the 2007 floods. Cumbria has since been hit badly in 2009 and 2015 (Storm Desmond) and 2019 by flooding. The Pitt Review concluded that up to 60% of flooding occurs from other sources, namely: -

- surface water,
- Ordinary Watercourses,
- groundwater.

It is Cumbria County Council's responsibility to manage the risks of localised flooding from these sources.

## The aims of the local strategy

- to coordinate the resources available from people and organisations who have interests in flooding to maximise a reduction in local flood risk;
- to promote a wider understanding and awareness of flooding in Cumbria;
- to explain how everyone can play a part in reducing flood risk and "who does what".

## What is local flood risk management?

Managing local flood risk involves:

- understanding where flooding may happen and why
- actions to reduce the possibility of flooding
- adaptation to the risks and acting to reduce the impacts of flooding

The local strategy provides a framework for delivering local flood risk management in Cumbria.

## Definitions

Local or surface water flood risk is any flooding from sources other than rivers and the sea. This includes flooding from sewers and drainage systems as a result of heavy rainfall, Ordinary Watercourses, groundwater and runoff flooding.

# Flooding in Cumbria

Cumbria's geography means it has high annual average rainfall; the wettest place in England is Seathwaite at the southern end of Borrowdale with an annual average rainfall total is approximately 3500mm. However, during the floods of December 2015, 341mm of rain fell in a 24 hour period at Honister Pass.

A Preliminary Flood Risk Assessment was prepared by Cumbria County Council in 2011 to deliver the requirements of the Flood Risk Regulations (2009). In 2017 an update to the Cumbria Lead Local Flood Authority PFR was published on the gov.uk website. DEFRA funding allowed us to develop a Surface Water Management Plan in 2010, with a further update to that plan by Summer of 2022. The action plan output has already enabled us to understand the surface water flood risk across the county via catchments which have been designated as Potential Vulnerable Areas (PVA's), within which we also have Areas of Risk in which we look to prioritise solutions and look towards further DEFRA funding or other funding sources to reduce flood risk.

The nature of surface water flooding in Cumbria is varied and dependant on natural and manmade features.

## **Surface Water/overland flows**

During periods of heavy rainfall many areas suffer from surface water runoff flowing over steep slopes from high ground. These flows frequently flood highway areas and adjacent properties as they run to lower areas.

## **Ordinary Watercourses**

Ordinary Watercourses are small watercourses that are not designated as Main Rivers. The powers to manage Ordinary Watercourses lie jointly between Cumbria County Council and District/Borough Councils.

Ordinary Watercourse flooding issues in Cumbria are mostly due to a lack of capacity during short term heavy rainfall "flash flooding".

## **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.

## **Other forms of flooding**

### **Main 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. The Environment Agency manages flood risk on Main Rivers.

### **Coastal flooding and erosion**

Coastal flooding results from poor weather conditions combined with high tides, causing sea levels to rise resulting in flooding of coastal areas. High coastal water 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. The Environment Agency manages flood risk from the sea.

### **Sewer flooding**

Flooding occurs when the amount of water entering the sewerage system exceeds its capacity or when the system becomes blocked.

### Flooding in Cumbria Storm Desmond 2015

In December 2015, Cumbria was subjected to its third extreme flood event in a decade. In total 7,465 properties were flooded equating to an estimated 14,694 persons affected. The storm forced road closures in 107 different locations across the county.

### Flood Incidents in Cumbria (2012 to 2021)

The following is the number of section 19 reports produced for properties some internally and some externally in Cumbria since 2012.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Flood Incidents, less than 5 properties	28	41	14	388	8	20	14	26	36	13	<b>588</b>
Flood Incidents, 5 or more properties	18	5	2	47	2	6	2	0	4	1	<b>87</b>
External Flooding	14	12	2	44	2	13	2	23	24	6	<b>142</b>
	<b>60</b>	<b>58</b>	<b>18</b>	<b>479</b>	<b>12</b>	<b>39</b>	<b>18</b>	<b>49</b>	<b>64</b>	<b>20</b>	<b>817</b>

### Flood Alleviation Schemes Progress

Following section 19 reports and further investigations from recommendations within the reports, there has been a total of 45 flood alleviation schemes completed since 2015, with a further 75 planned for the next 12 years.

	Allerdale	Barrow	Carlisle	Copeland	Eden	South Lakeland	Total
Completed Schemes	9	3	6	7	6	14	<b>45</b>
In Progress	2	1	0	5	4	9	<b>21</b>
Future Schemes	4	2	8	11	12	17	<b>54</b>
	<b>15</b>	<b>6</b>	<b>14</b>	<b>23</b>	<b>22</b>	<b>40</b>	<b>120</b>









## Flood risk management roles in Cumbria

Many different authorities share the management of flood risk in Cumbria, each with different responsibilities, powers and duties. This has presented a confusing picture to the public in the past. It is the job of the County Council in its role to work towards delivering a seamless service in tackling flood risk management locally. To meet these challenges in times of austerity and climate change, it is essential that these authorities work together, coordinating activities and sharing resources.

Flood 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 Flood and Water Management Act 2010.

Authorities such as the District/Borough Councils, the Environment Agency and United Utilities work closely with the County Council in managing local flood risk. But partnership working extends beyond relationships with statutory bodies. It can include any non government organisation or individual with an interest in flood risk management. The Strategy describes our approach to working with Parish and Town Councils, Community Groups, Land Owners, Rivers Trusts and others.



# Objectives of managing local flood risk

There are substantial local flood risks in many areas across Cumbria. It is important to have clear objectives to address local flooding in order that the risks can be understood. Our Local Flood Risk Management Strategy identifies 5 Policy Objectives to manage local flood risk: -

## The Objectives

- **Policy Objective 1**  
Reduction in flood risk to the people of Cumbria.

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- **Policy Objective 2**  
Increased knowledge and awareness of the factors affecting flood risk across Cumbria.

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- **Policy Objective 3**  
Ensure that flood risk management is integrated within the planning process in Cumbria.

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- **Policy Objective 4**  
Facilitate close partnership working between all risk management authorities.

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- **Policy Objective 5**  
Improve community resilience through awareness of flood risk.

These policy objectives have been developed to be consistent with the Cumbria County Council Plan 2018-2022 and the National Flood and Coastal Erosion Risk Management Strategy produced by the Environment Agency.

## Cumbria County Council Plan 2018-2022

The Plan has 3 outcomes: -

- 1. People in Cumbria are healthy and safe.**

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- 2. Places in Cumbria are well-connected and thriving.**

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- 3. The economy in Cumbria is growing and benefits everyone.**



The Policy Objectives of our Local Flood Risk Management Strategy have been designed to respond to the demands of these outcomes. A commitment under Priority 4 states: “As Lead Local Flood Authority, we will work with partners and others in the community to ensure that Cumbria is as prepared as possible to deal with flooding”.

## The National Flood and Coastal Erosion Risk Management Strategy

The Policy Objectives of our Local Flood Risk Management Strategy have been designed to respond to and be consistent with the three core ambitions of The 2020 Flood and Coastal Erosion Risk Management Strategy published by the Environment Agency. These are: -

- **Climate resilient places.**

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- **Today’s growth and infrastructure resilient in tomorrow’s climate.**

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- **A nation ready to respond and adapt to flooding and coastal change.**



# Measures supporting the Cumbria Local Flood Risk Management Strategy

This section of our Strategy sets out how Cumbria County Council will exercise the powers and duties that we have as a LLFA under the Flood & Water Management Act 2010. It also discusses how we will carry out 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: -

## **Cumbria Surface Water Management Plan (SWMP)**

The development our Surface Water Management Plan is discussed, describing how it assessed flood risk in detail across Cumbria and the Action Plan it produced. The impacts of climate change are also discussed.

## **Our duties under the Flood & Water Management Act 2010**

These duties include: -

- flood investigation and reporting;
- registering details on features that have impact on flood risk;
- consenting works on Ordinary Watercourses;
- approval of drainage systems serving new development;
- information sharing;
- sustainable development.

We set our approach to partnership working in meeting these responsibilities. A summary of our duties under the Act is provided in Annex C.

## **Developing partnerships to deliver the policy objectives of this Strategy**

Partnership working extends beyond the remit of the legislation. Our vision is to embrace and maximise the delivery of the policy objectives of the Strategy. These activities include: -

- Coordinated flood risk planning and delivery;
- Tackling flood risk through the planning process;
- Communication;
- Cooperation;
- Building trust;
- Working with communities.

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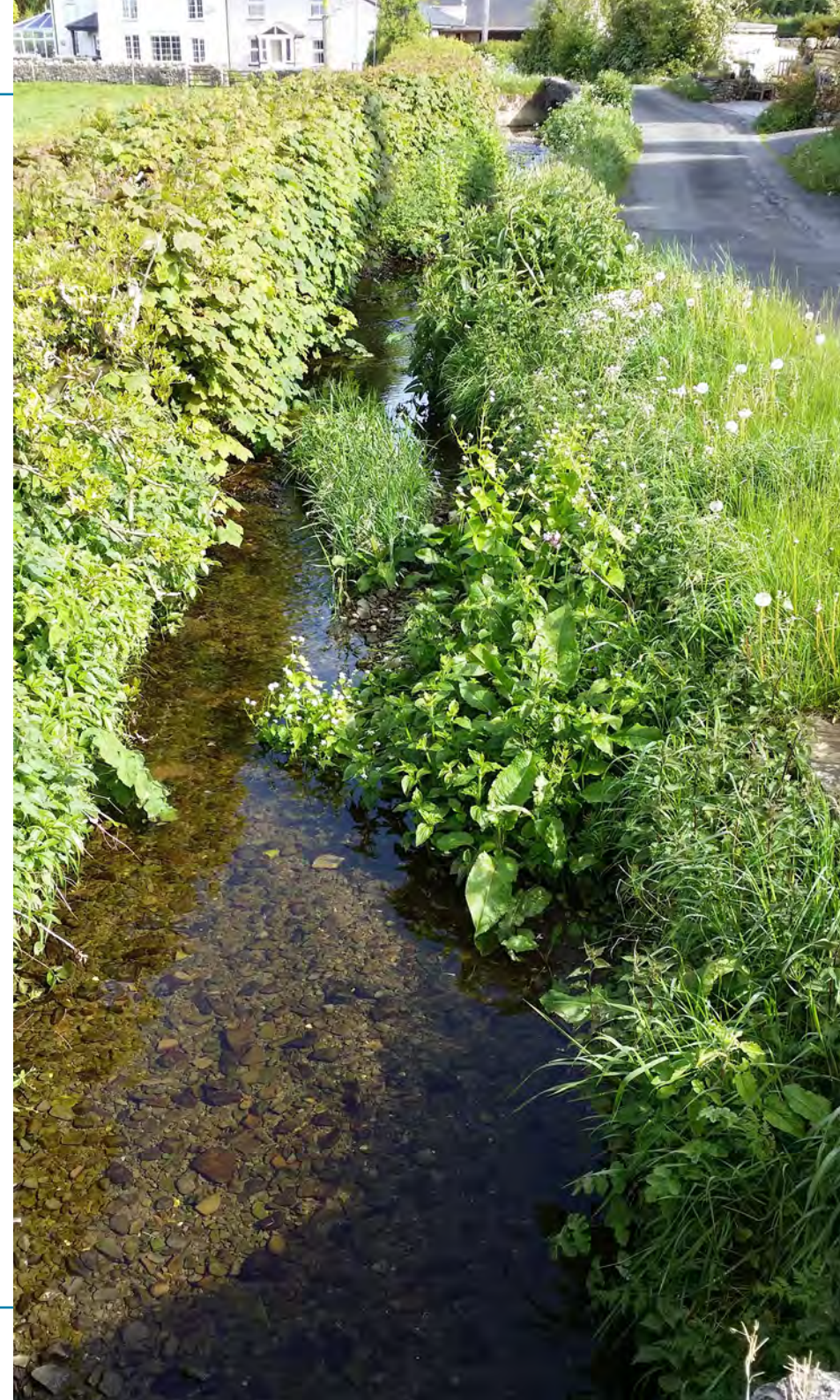
# Local Flood Risk Management Strategy Action Plan

The Local Flood Risk Management Strategy Action Plan identifies a programme of work for Cumbria County Council 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.

It is the responsibility of the Local Flood Risk Management team of Cumbria County Council to ensure that the Strategy Action Plan is implemented. Local schemes may receive funding from any of the following sources: -

- Flood & Coastal Risk Management Grant in Aid from the government (DEFRA)
- Local levy from the North-West Regional Flood & Coastal Committee
- Water company - United Utilities
- Local Enterprise Partnership
- Local Authority (County, District, Borough)
- Those directly benefiting
- Others

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.





## Next steps

### **Implementing the Local Flood Risk Management Strategy Action Plan**

The Local Flood Risk Management Strategy 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 Cumbria County Council's website.

Progress and continual review of the Local Flood Risk Management Strategy will be standard agenda items for the groups monitoring the activities of the LLFA: -

#### **1 Making Space for Water Groups.**

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#### **2 Cumbria LLFA Strategic Partnership meetings.**

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#### **3 North West Regional Flood and Coastal Committee.**

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#### **4 Community Flood Forums.**

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In addition to this, community feedback from action groups and councillors.

### **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 Cumbria. As such it will have the status of a 'living document', but formal consultation and approval by Cumbria County Council 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 and Catchment Flood Risk Management Plans.

A review of the Cumbria SWMP will precede and inform the formal strategy update; it will provide the technical details required. 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 next Cumbria LFRMS to receive formal approval from Cumbria County Council will be published in 2028 following public consultation.









This document is a summary of the Draft Local Flood Risk Management Strategy. The main Draft Strategy document contains a comprehensive overview of Cumbria County Council's approach to local flood risk management and a Strategic Environmental Assessment (SEA) of its potential impacts.

All section headings within this summary document relate directly to the main draft Cumbria Local Flood Risk Management Strategy.

The following documents are available on Cumbria County Council's website at: [www.cumbria.gov.uk/planning-environment/flooding/default.asp](http://www.cumbria.gov.uk/planning-environment/flooding/default.asp)

- **Draft Local Flood Risk Management Strategy**
- **Annex A.** Governance and Partnership Arrangements
- **Annex B.** Risk Assessment
- **Annex C.** LLFA Duties Under the Flood & Water Management Act 2010
- **Annex D.** Action Plan
- **Annex E.** Strategic Environmental Assessment
- **Annex F.** Habitats Regulations Assessment
- **Annex G.** Water Framework Directive Assessment

Printed copies can be obtained from local libraries or by contacting:-

t: **01228 221330**

w: [lfrm@cumbria.gov.uk](mailto:lfrm@cumbria.gov.uk)

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