

Regeneration and Local Services

Technical Services

Local Flood Risk Management Strategy 2016-2020

Altogether better



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1. Introduction

1.1 Durham County Council (DCC) is the Lead Local Flood Authority (LLFA) for County Durham under the Flood and Water Management Act 2010 (FWMA 2010).

1.2 One of the responsibilities of the LLFA is to prepare and maintain a Local Flood Risk Management Strategy (LFRMS) which shows how all the Risk Management Authorities and other partners in County Durham work together to manage flood risk.

1.3 The Risk Management Authorities (RMAs) in County Durham are:

- DCC;
- Environment Agency (EA); and
- Northumbrian Water (NW).

Other responsible stakeholders include:

- Highways England (HE) - responsible for maintenance of the A1(M), A19 and A66; and
- Riparian Owners - Landowners with responsibility for watercourses.

1.4 The aims of the LFRMS are that all relevant partners work together to:

- Understand flood risk in County Durham;
- Mitigate flood risk in County Durham; and
- Increase resilience to flood risk in County Durham.

2. Roles and Responsibilities

2.1 The roles and responsibilities of each partner involved in flood risk management are summarised as follows:

	Responsibility				
	DCC	EA	NW	Highways England	Riparian Owners
Table A: Local Sources of Flooding					
Surface Water Occurs when surface water cannot soak into the ground and either cannot reach or exceeds the capacity of the local drainage network. Typically caused by short, intense rainfall events. Can be exacerbated when the ground is saturated.	✓			✓	✓
Groundwater When water levels in the ground rise above the surface of	✓			✓	✓

	Responsibility				
	DCC	EA	NW	Highways England	Riparian Owners
Table A: Local Sources of Flooding					
the land (i.e. from a high water table). Usually associated with long periods of sustained high rainfall.					
Ordinary Watercourse Watercourses including all rivers and streams not designated as a main river and all ditches, drains, cuts, culverts, dikes, sluices, sewers (other than public sewers) and passages, through which water flows. Flooding occurs when the capacity of the watercourse is exceeded, causing water to spill out of the channel into surrounding areas.	✓		✓	✓	✓

	Responsibility				
	DCC	EA	NW	Highways England	Riparian Owners
Table B: Other Sources of Flooding					
Main River (Fluvial) These are designated as main rivers by the EA. When a designated 'main river' does not have enough capacity to contain the water flowing into it, it results in water spilling out onto surrounding land. Flooding of this nature is caused by periods of heavy rainfall and can result in deep and fast moving water.	✓				✓
Coastal Tidal inundation by high tides and surges in sea water caused by a combination of weather conditions. This may also impede rivers and drains that flow into the sea causing inland flooding.	✓	✓	✓		✓
Reservoir Occurs when a dam overtops or fails resulting in a large volume of retained water being released very quickly into the downstream area.	✓	✓	✓		
Sewer Caused when the flows entering the sewer network exceed its capacity. Sewers may carry foul water, rainwater or both (combined).	✓		✓		
Highway A combination of sewer and surface water flooding located on a main highway.	✓		✓	✓	

2.2 **DCC**

2.2.1 DCC is the LLFA responsible for the strategic overview of local flooding across County Durham and the following flood risk management functions:

- Duty to investigate flood incidents and publish their findings;
- Creation and maintenance of an asset register;
- Statutory consultee on major planning applications;
- Designating features;
- Publishing a LFRMS;
- Enforcement and consenting powers;
- Planning and development control;
- Partnership working; and
- Power to undertake flood risk management works.

2.3 **EA**

2.3.1 The EA is the RMA for main rivers and the sea. It has a strategic overview role for all flood risk management and works closely with LLFAs and local communities to manage flood risk in response to local priorities. They provide flood warnings for areas at risk from fluvial and coastal flooding and are the emergency responder to flood incidents from main rivers and coastal flooding.

2.4 **NW**

2.4.1 NW is the RMA and sewerage undertaker responsible for the public sewer system. NW work closely with developers and landowners to reduce the rate and amount of rainfall entering sewers through the use of sustainable drainage systems.

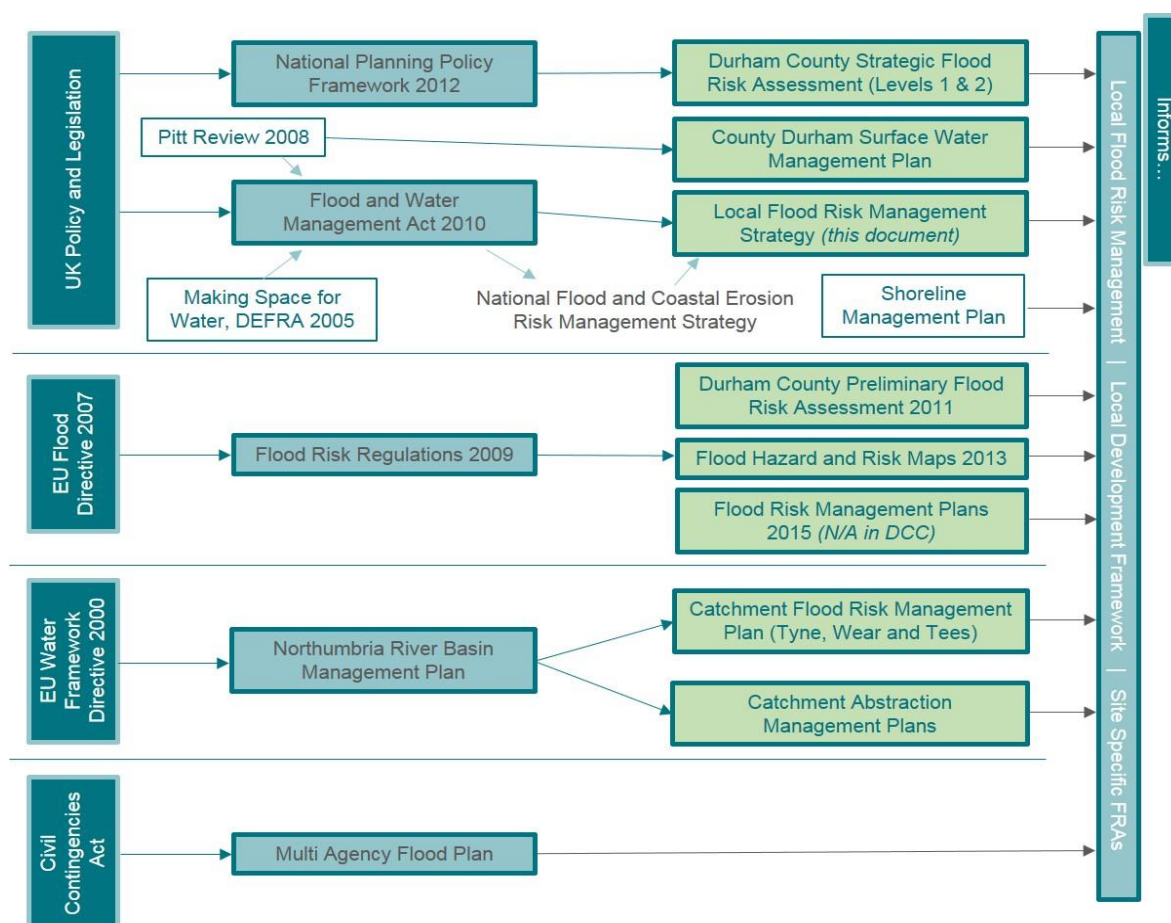
2.5 **Riparian Owners**

2.5.1 Landowners who have a watercourse in or adjacent to their land are 'riparian owners' and are responsible for maintenance. The rights and responsibilities of riparian owners are explained in the EA publication 'Living on the Edge' which can be found at the following link:

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

3. **Other Plans and Legislation**

3.1 The diagram below shows how the LFRMS links to other plans and legislation:



4. Flood Risk in County Durham

4.1 *Strategic Flood Risk Assessment*

4.1.1 DCC has produced a Strategic Flood Risk Assessment (SFRA) which is available on our website at the following link:

<http://www.durham.gov.uk/article/1953/Strategic-Flood-Risk-Assessment>

4.1.2 The SFRA gives an overview of areas (including maps) that are at risk of flooding from all sources.

4.2 *Preliminary Flood Risk Assessment*

4.2.1 DCC has produced a Preliminary Flood Risk Assessment (PFRA) which is available on our website at the following link:

<http://www.durham.gov.uk/article/1951/Managing-the-countys-flood-risk>

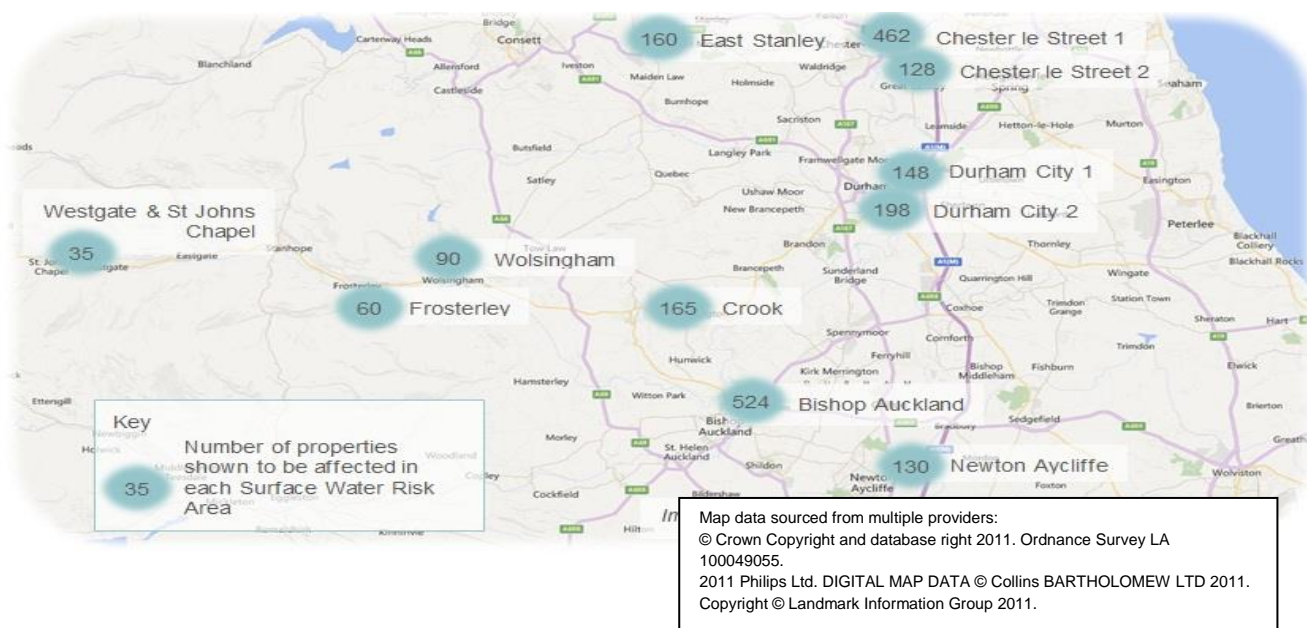
4.2.2 The PFRA that the Council undertook in September 2011 provides an initial assessment of flood risk across County Durham and identified areas at risk of flooding from ordinary watercourses, surface water and groundwater.

4.3 **Surface Water Management Plans**

4.3.1 DCC has produced a Surface Water Management Plan (SWMP) which is available on our website at the following link:

<http://www.durham.gov.uk/article/1951/Managing-the-countys-flood-risk>

4.3.2 The SWMP outlines the preferred surface water management strategy in a given location. The SWMP has identified 139 surface water risk areas in County Durham and the 11 with the largest numbers of properties at risk are shown below:



4.4 **Flood Risk Maps**

4.4.1 The EA has produced flood risk maps which are available on their website at the following link:

<http://apps.environment-agency.gov.uk/wiyby/37837.aspx>

4.4.2 The flood risk maps show the predicted likelihood of flooding.

4.5 **Asset Data and Investigations**

4.5.1 The RMAs are responsible for managing their respective assets and freely share this data and the results of any investigations with each other.

4.6 **Climate Change and Adaptation**

4.6.1 Climate change has the potential to have a significant impact on flood risk in several ways and impacts will depend upon local conditions and vulnerability.

- 4.6.2 More frequent and intense rainfall may increase river flooding in both rural and urban catchments, raise groundwater levels and cause more surface water run-off increasing localised flooding. This can also result in other associated failures and damage such as land slips and erosion.
- 4.6.3 Rising sea or river levels may increase the risk of coastal flooding along with inland flood risk in areas away from major rivers due to interactions with local drains, sewers and ordinary watercourses.
- 4.6.4 DCC's Climate Change Strategy and Delivery Plan (2013) considers the impact of a changing climate on local flood risk and is available on the Council's website at the following link:

<http://www.durham.gov.uk/climatechange>

5. **Partnership Working**

5.1 There are a number of organisations with responsibility for different aspects of flood risk management in County Durham. The causes of flooding and the response to flooding often involves two or more organisations. Therefore effective partnership working is vitally important to flood risk management.

5.2 The following partnerships are in place to support flood risk management in County Durham:

5.3 ***Northumbria Regional Flood and Coastal Committee***

5.3.1 The Northumbria Regional Flood and Coastal Committee (NRFCC) is a committee established by the EA under the FWMA 2010 that brings together members appointed by LLFAs and independent members with relevant experience for three purposes:

- To ensure there are coherent plans for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines;
- To encourage efficient, targeted and risk-based investment in flood and coastal erosion risk management that represents value for money and benefits local communities; and
- To provide a link between the EA, LLFAs, other RMAs, and other relevant bodies to build understanding of flood and coastal erosion risks in its area.

5.3.2 Each LLFA appoints one Councillor to be their representative on the NRFCC. The NRFCC oversees the Local Levy (please see paragraph 6.5 below).

5.3.3 Please see the NRFCC website for further details:

<https://www.gov.uk/government/groups/northumbria-regional-flood-and-coastal-committee>

5.4 ***Durham Strategic Flood Prevention Group***

5.4.1 DCC as the LLFA chairs and hosts the Durham Strategic Flood Prevention Group.

5.4.2 The objectives of the Group are to:

- Promote flood prevention schemes and prioritise schemes for funding;
- Monitor the delivery of flood prevention schemes;
- Ensure that flood prevention is fully considered as part of development plans;
- Liaise on the development of relevant flood prevention strategies and plans;
- Promote collaborative working between the partner organisations; and
- Provide a forum for sharing information and best practice on flood prevention.

5.4.3 The member organisations are:

- DCC (representatives from Drainage & Coastal Protection Team, Planning, Civil Contingencies Unit and DCC Member of the Northumbria Regional Flood & Coastal Committee);
- EA;
- NW;
- County Durham Fire & Rescue Service; and
- Durham Wildlife Trust.

5.4.4 The Durham Strategic Flood Prevention Group meets quarterly and reports to the NRFCC.

5.5 ***County Durham and Darlington Local Resilience Forum***

5.5.1 The County Durham and Darlington Local Resilience Forum (LRF) ensures that all relevant agencies and organisations plan and work together to ensure a co-ordinated response to emergencies including flooding that could have a significant impact on communities in County Durham.

5.5.2 The LRF undertakes regular exercises to help ensure that organisations are fully prepared and that plans are up to date.

5.5.3 Please see the LRF website for further details:

<https://www.durham.police.uk/Information-and-advice/Pages/Local-Resilience-Forum.aspx>

6. **Flood Prevention Schemes**

- 6.1 The RMAs each have a programme of flood prevention schemes in relation to their respective assets. In addition, landowners may be requested to undertake flood prevention schemes on their assets.
- 6.2 The demand for flood prevention schemes far outweighs the available budgets so funding is prioritised based on a combination of risk, cost and benefits. The benefits of flood prevention schemes often relate to the number of properties protected.
- 6.3 DCC provides periodic updates on flood prevention schemes to Cabinet and the Environmental & Sustainable Communities Overview & Scrutiny Committee.
- 6.4 RMAs and landowners are required to fund the maintenance of their respective assets. The following grant funding is available to RMAs to fund flood prevention schemes:
- Local Levy Grant; and
 - Flood and Coastal Erosion Risk Management (FCERM) Grant.
- 6.5 The Local Levy Grant is administered by the NRFCC and is raised through a levy on Council Tax bills. The Local Levy budget for the NRFCC area in financial year 2016/17 is £2.1 million.
- 6.6 FCERM Grant is funded and administered by the Environment Agency. The FCERM Grant for the North East in financial year 2016/17 is £27.1 million.
- 6.7 Schemes may be funded by a combination of Local Levy Grant and FCERM Grant and in addition they usually require a funding contribution from RMAs. Businesses may also be requested to contribute funding where they are beneficiaries of flood prevention schemes.
- 6.8 Please see Appendix 2 - Medium Term Investment Plan for details of current proposed flood prevention schemes. The Medium Term Investment Plan is updated each year as schemes develop and new schemes are identified.

7. **Development and Planning Control**

- 7.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and provides guidance on how these policies should be applied. This includes requirements relating to flood risk. DCC as a Planning Authority therefore has a key role to ensure that any development does not increase flood risk elsewhere.
- 7.2 Development may be proposed to be located in areas at risk of flooding. The Council will only grant approval where it is justified, having been through all the relevant tests required by the NPPF and supported by a

site specific FRA. The development would only be granted approval where the flood risk can be managed safely and provided that it does not increase flood risk elsewhere.

7.3 DCC's Drainage & Coastal Protection Team are a statutory consultee on planning applications to ensure that flood risk is fully considered and mitigated.

7.4 DCC works closely with developers to develop Sustainable Drainage Systems (SuDS) for new developments. Please see our website for further details:

<http://www.durham.gov.uk/article/7363/Sustainable-drainage-systems>

8. **Action Plan**

8.1 The aims of the LFRMS are that all relevant partners work together to:

- Understand flood risk in County Durham;
- Mitigate flood risk in County Durham; and
- Increase resilience to flood risk in County Durham.

8.2 Please see Appendix 1 - Action Plan for details of how these aims will be achieved.

9. **Flooding Help & Advice**

9.1 This LFRMS aims to help improve understanding of flood risk so that residents and businesses at risk of flooding can improve their resilience.

9.2 DCC's Civil Contingencies Unit (CCU) work with local communities to help them develop community resilience plans to respond to severe weather events including flooding.

9.3 Please see our website for emergency contact details, help and safety advice:

<http://www.durham.gov.uk/article/1919/Flooding-help-and-advice>

10. **Feedback**

10.1 DCC welcomes feedback on any aspect of this LFRMS. If you would like to provide feedback please contact our Drainage & Coastal Protection Team as follows:

- Email: ns_drainage@durham.gov.uk
- Telephone number: 03000 263679

Appendix 1: Action Plan

Aim	Objective	Action	Responsibility	Status
1. Understand flood risk in County Durham	Review, maintain and enhance the evidence base relating to flood risk	Ensure that the following assessments and plans continue to be updated: - Strategic Flood Risk Assessment - Preliminary Flood Risk Assessment - Surface Water Management Plans - Flood Risk Maps	DCC, EA	Complete subject to on-going updates
	Encourage the public to report flood incidents and undertake flood investigations where required	Continue to provide flooding help and advice on websites	DCC, EA, NW	Complete subject to on-going investigations
	Facilitate the sharing of flood risk knowledge between Risk Management Authorities	Continue to support the following knowledge sharing forums: - Durham Strategic Flood Prevention Group; - Northumbrian Regional Flood and Coastal Committee (NRFCC); - Northumbrian Integrated Drainage Partnership (NIDP); - Quarterly Liaison meetings with DCC and NW; - Operational meeting with DCC and NW; and - North East Lead Local Flood Authority Sustainable Drainage Systems Liaison (NELLFA).	DCC, EA, NW	Complete subject to on-going participation
2. Mitigate flood risk in County Durham	Identify and prioritise potential flood prevention schemes using the evidence base	Continue to develop, review and maintain: - Medium Term Investment Plan - Long Term Investment Plan	DCC, EA, NW	Complete subject to on-going updates

Aim	Objective	Action	Responsibility	Status
	Maximise funding for flood prevention schemes	Continue to develop Business Cases for funding for new schemes from FCERM, Local Levy, Risk Management Authority budgets and beneficiaries	DCC, EA, NW	On-going for new schemes
	Ensure the effective delivery of flood prevention schemes	Risk Management Authorities have appropriate project Management and governance in place Durham Strategic Flood Prevention Group continues to monitor delivery	DCC, EA, NW	Effective arrangements in place
	Ensure there is no increase in flood risk as a result of development	Continue to promote development in appropriate locations	DCC	Effective arrangements in place
		Continue to ensure development proposals are in accordance with local policies referring to flood risk	DCC, Developers	Effective arrangements in place
		Continue to provide advice on all major planning applications	DCC	Effective arrangements in place
3. Improve resilience to flood risk in County Durham	Raise the awareness of residents, businesses and community groups about flood risk and how to increase resilience	Continue to provide flooding help and advice on websites Continue to encourage and assist community groups to produce severe weather resilience plans Continue to engage with schools and community groups on severe weather and how to build resilience	DCC, EA	CompleteOngoing
	Ensure that the Emergency Services, DCC, EA and NW have plans and resources in place to respond to flood events	Plans are in place and regular exercises are undertaken.	LRF	Complete subject to on-going updates

Appendix 2: Medium Term Investment Plan

Scheme	Details	Year	Council	EA (Local Levy/ FCERM Grant)	Total Value £'000s
Etherley Lane, Bishop Auckland		2015/16	98	81	179
Greta Bridge		2016/17	-	40	40
Hood St, St Johns Chapel		2015/16	24	164	188
Lanchester		2015/16	0	437	437
Lanchester		2016/17	200	600	800
New Brancepeth & Ushaw Moor		2015/16	-	142	124
New Brancepeth & Ushaw Moor		2016/17	-	48	48
Shotley Bridge		2015/16	-	5	5
Shotley Bridge		2019/20	-	86	86
Witton Gilbert		2015/16	202	415	617
Witton Gilbert		2017/18	-	300	300
Dene Crescent		2017/18	-	46	46
Pelton		2017/18	-	32	32
Craigland Villas		2018/19	-	46	46
Dipton		2018/19	-	37	37
Castlefields Bournmoor		2019/20	6	30	36
Cherry Bank		2020/21	1	5	5
Dunelm Walk, Leadgate		2019/20	12	20	32
Hardwick Rd, Sedgefield		2019/20	55	106	161
Hillmeads, Nettlesworth		2019/20	10	85	95
North West, Durham		2019/20	-	7	7
Kingfisher Close, Esh Winning		2020/21	88	67	155
Total			696	2,799	3,476

Appendix 3: Abbreviations

CCU - Civil Contingencies Unit

DCC - Durham County Council

EA - Environment Agency

FWMA 2010 - Flood and Water Management Act 2010

HE - Highways England

LFRMS - Local Flood Risk Management Strategy

LLFA - Lead Local Flood Authority

LRF - Local Resilience Forum

NPPF - National Planning Policy Framework

NRFCC - Northumbria Regional Flood and Coastal Committee

NW - Northumbrian Water

PFRA - Primary Flood Risk Assessment

RMA - Risk Management Authority

SFRA - Strategic Flood Risk Assessment

SWMP - Surface Water Management Plan