

Neighbourhood Services

Technical Services

**Local Flood Risk
Management
Strategy**

Altogether better



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DRAFT

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1. Introduction

1.1 Durham County Council 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:

- Durham County Council (DCC);
- Environment Agency (EA); and
- Northumbrian Water Limited (NWL).

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:

Table A: Local Sources of Flooding	Responsibility				
	DCC	EA	NWL	Highways England	Riparian Owners
Surface Water Occurs when rainfall (including snow and other precipitation) 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 the land (i.e. from an underlying aquifer or a spring). Usually associated with long periods of sustained high rainfall.	✓				
Ordinary Watercourse Small watercourses including all rivers and streams not designated as a main river and all ditches,	✓				✓

Table A: Local Sources of Flooding	Responsibility				
	DCC	EA	NWL	Highways England	Riparian Owners
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					

Table B: Other Sources of Flooding	Responsibility				
	DCC	EA	NWL	Highways England	Riparian Owners
<p>Main River (Fluvial) These tend to be the larger arterial watercourses and are often designated as main rivers by the EA when considered to pose a significant flood risk.</p> <p>When a designated 'main river' does not have enough capacity to contain the water flowing into it resulting in water spilling out onto surrounding land. Flooding of this nature is often caused by periods of heavy rainfall and can result in deep and fast moving flood water.</p>	✓				✓
<p>Coastal Tidal inundation caused by high tides, surges in sea water and strong winds which raise the sea level above the ground level of the coast or any infrastructure present e.g. flood defences. This can also impede rivers and drains that flow into the sea causing inland flooding</p>		✓			
<p>Reservoir An impounded water body greater than 25,000m³, where those defined as large raised reservoirs and as high risk are subject to the full requirements of the amended Reservoirs Act. Occurs when a dam overtops or fails resulting in a large volume of retained water being released very quickly into the downstream area</p>	✓	✓	✓		
<p>Sewer Caused when the volume of water entering the sewer network exceeds its capacity. Sewers may carry foul water, rainwater or both (combined).</p>	✓		✓		

Table B: Other Sources of Flooding	Responsibility				
	DCC	EA	NWL	Highways England	Riparian Owners
Highway A combination of sewer and surface water flooding located on a main highway.	✓			✓	

2.1 DCC

2.2.1 DCC is the RMA for 'local' sources of flooding which are surface water run-off, groundwater and ordinary watercourses.

2.2.2 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.

2.2 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.

2.3 NWL

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

2.4 Riparian Owners

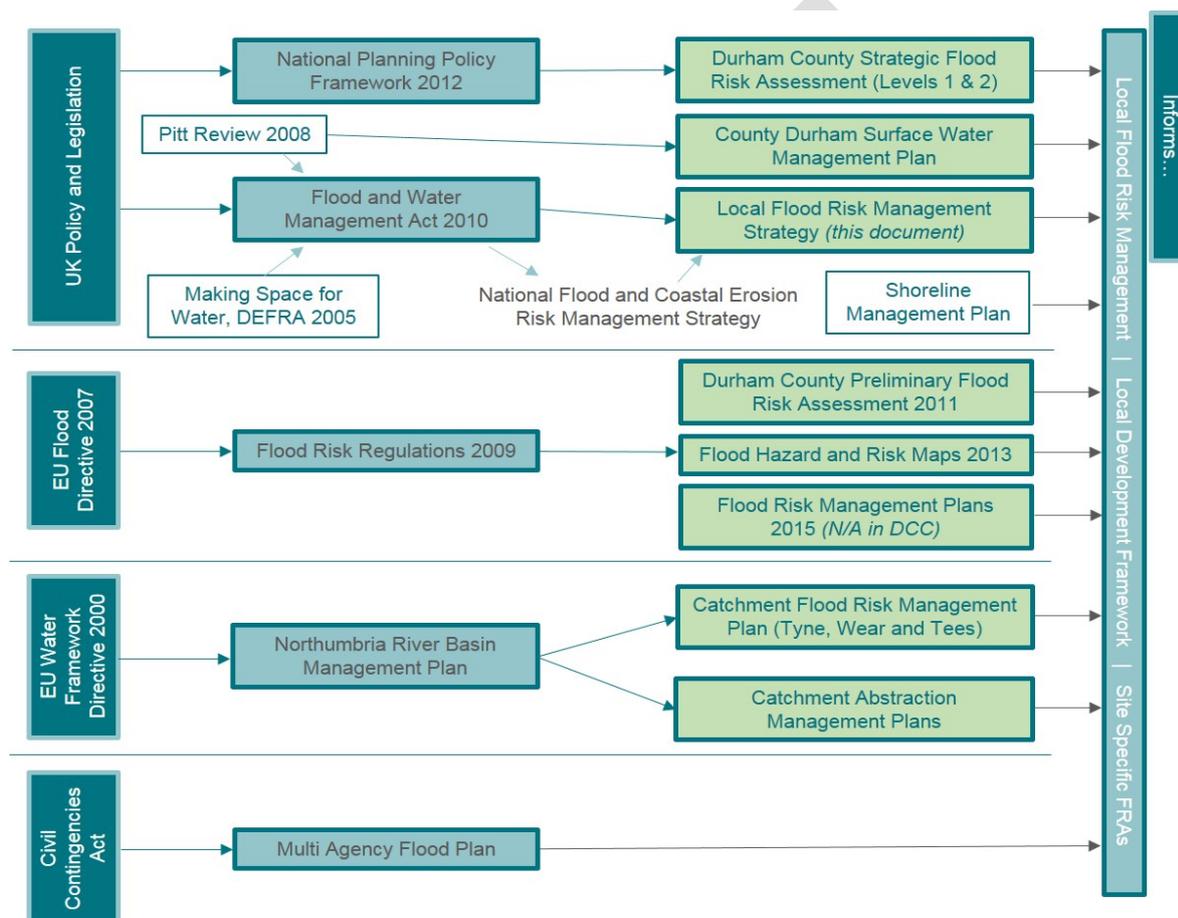
2.5.1 Landowners who have a watercourse in or adjacent to their land are 'riparian owners' and are responsible for maintenance. The rights and

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. This is to help inform development and supports the County Durham Plan.

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 provided an initial assessment of flood risk across County Durham and identified areas at risk of flooding from ordinary watercourses, surface water and groundwater.

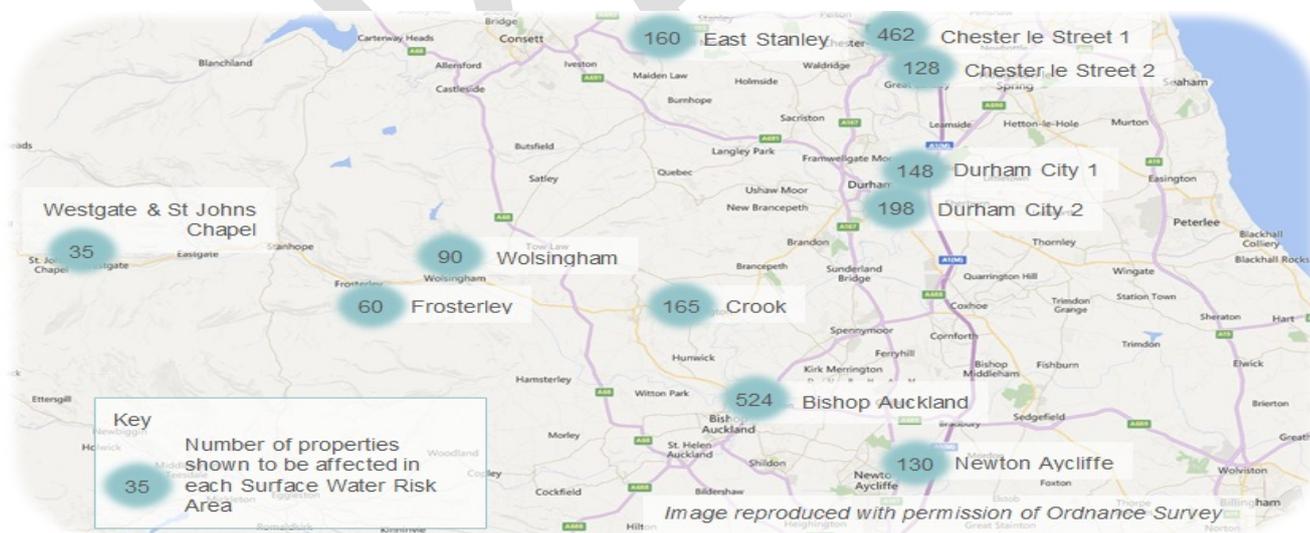
4.2.3 The PFRA is used to identify major flood risk areas that affect over 30,000 people. There are no major flood risk areas in County Durham.

4.3 **Surface Water Management Plans**

DCC has produced Surface Water Management Plans (SWMP) which are available on our website at the following link:

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

SWMPs are plans which outline the preferred surface water management strategy in a given location. The SWMPs have identified 139 surface water risk areas in County Durham and the 13 with the largest numbers of people 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 are intended to help inform the public of flood risk.

4.5 ***Asset Data and Investigations***

4.5.1 The Risk Management Authorities 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 heavily urbanised catchments, raise groundwater levels and cause more surface water run-off increasing localised flooding and erosion.

4.6.3 Rising sea or river levels may increase the risk of coastal flooding along with inland flood risk or 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 so 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.

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;
- NWL;
- County Durham Fire & Rescue Service; and
- Durham Wildlife Trust.

5.4.4 The Durham Strategic Flood Prevention Group 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 that could have a significant impact on communities in County Durham including flooding.

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 its 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 Plan for details of current proposed flood prevention schemes. The Medium Term 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 need to be located in areas at risk of flooding. The Council will only allow this to occur where it is justified, having been through all the relevant tests required by the NPPF and supported by a site specific Flood Risk Assessment. Only if the flood risk can be managed safely and if it does not increase flood risk elsewhere should the development proceed.

7.3 DCC's Drainage & Coastal Protection team undertake DCC's duties as the LLFA and they are a statutory consultee on planning applications to ensure that flood risk is fully considered and mitigated.

7.4 Any development that is proposed in the floodplain or that would be isolated in a flood event will be considered by emergency planners regarding the ability to respond in the event of a flood. They need to be satisfied that the new development will not compromise the safety of any inhabitants of the development, the response they offer to existing properties or the safety of the responders.

7.5 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. **Environmental Considerations**

9.1 DCC is fully committed to ensuring that environmental issues are fully considered as part of flood risk management in County Durham. This includes but is not limited to:

- Compliance with relevant regulations such as the Habitat Regulations and Water Framework Directive;
- Considering green engineering options; and
- Promotion of SuDS.

10. **Flooding Help & Advice**

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

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

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

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

11. **Review**

11.1 This LFRMS will be reviewed and updated as appropriate subject to consultation every 3 years.

11.2 The Medium Term Plan is updated on an annual basis.

12. **Feedback**

12.1 DCC welcomes feedback on any aspect of this LFRMS. If you would like to provide feedback please provide via Customer Services using the following contact details:

- Website: www.durham.gov.uk
- Email: help@durham.gov.uk
- Telephone number: 03000 261000

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: <ul style="list-style-type: none"> - 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, NWL	Complete subject to on-going investigations
	Facilitate the sharing of flood risk knowledge between RMAs	Continue to support the following knowledge sharing forums: <ul style="list-style-type: none"> - Durham Strategic Flood Prevention Group - NWL Liaison Group - EA Inland Flood Group - EA Coastal Group - North East Coastal Group - Northumbria Integrated Drainage Partnership 	DCC, EA, NWL	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 the Medium Term Plan	DCC, EA, NWL	Complete subject to on-going updates
	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, NWL	On-going for new schemes

Local Flood Risk Management Strategy

	Ensure the effective delivery of flood prevention schemes	<ul style="list-style-type: none"> - RMAs have appropriate project Management and governance in place - Durham Strategic Flood Prevention Group continues to monitor delivery 	DCC, EA, NWL	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	<ul style="list-style-type: none"> - 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 NWL 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 Plan

Flood Prevention Schemes	Details	Year	Council Funding £'000s	EA (Local Levy/FCERM Grant) Funding £'000s	Total Value £'000s
Greta Bridge	Flooding of property from Tutta Beck	2016/17	-	40	40
Lanchester	Mitigate flood risk to Lanchester Front Street	2016/17	200	600	800
New Brancepeth & Ushaw Moor	Flooding from overland flows	2016/17	-	48	48
Shotley Bridge	Culvert improvements	2019/20	-	86	86
Dene Crescent, Sacriston	Flooding from overland flows	2017/18	-	46	46
Pelton	Flooding from overland flows	2017/18	-	32	32
Craigland Villas	Flooding from overland flows	2018/19	-	46	46
Dipton	Culvert improvements	2018/19	-	37	37
Castlefields Bournmoor	Flooding from overland flows	2019/20	6	30	36
Cherry Bank	Flooding from highway	2020/21	1	5	5
Dunelm Walk, Leadgate	Flooding from overland flows	2019/20	12	20	32
Hardwick Rd, Sedgfield	Flooding from overland flows	2019/20	55	106	161
Hillmeads, Nettlesworth	Flooding from overland flows	2019/20	10	85	95
North West, Durham	Flooding from overland flows	2019/20	-	7	7
Kingfisher Close, Esh Winning	Flooding from Hedleyhope Burn	2020/21	88	67	155
Total			372	1,255	1,626

The Medium Term Plan contains proposed schemes that include a funding contribution from Local Levy and/or FCERM Grant.

The Medium Term Plan is updated each year as schemes develop and new schemes are identified.

In addition, each of the RMAs have a programme of ongoing maintenance and improvements to their respective assets.