

Agenda Item No. 4(g)

DERBYSHIRE COUNTY COUNCIL

**MEETING OF CABINET MEMBER – HIGHWAYS, TRANSPORT AND
INFRASTRUCTURE**

20 January 2015

Report of the Strategic Director – Economy, Transport and Environment

**APPROVAL FOR RELEASE OF THE DRAFT LOCAL FLOOD RISK
MANAGEMENT STRATEGY FOR PUBLIC CONSULTATION**

(1) **Purpose of Report** To update the Cabinet Member regarding the progress made on the preparation of the Council's Local Flood Risk Management Strategy (LFRMS) and to seek Cabinet Member's approval for the draft LFRMS to be released for public consultation.

(2) **Information and Analysis** Under the Flood and Water Management Act 2010, (FWMA) Derbyshire County Council, as the Lead Local Flood Authority (LLFA), is duty bound to develop, apply, maintain, and monitor a LFRMS.

Derbyshire County Council has a duty to produce a Strategy in line with the national strategy and guidance. The Council's Strategy aims to be a progressive document that encompasses all the associated legal requirements placed on Derbyshire County Council as a LLFA. It will also enable Derbyshire County Council to demonstrate to the people of Derbyshire all the work that has been undertaken to date and explain the aspirations for the future service delivery plan in relation to flood risk management within Derbyshire.

Developing a robust and comprehensive strategy for Derbyshire will permit a holistic view of the risks and priorities, facilitate well informed future decision making, mitigate risks and identify benefits to the residents and businesses of Derbyshire by delivering a sustainable and safer future.

The LFRMS will be a live document that will set out the Council's principles and provide the framework to prioritise objectives. Over the coming years, the LFRMS will evolve as the Authority's understanding of flood risk continues to grow.

The Strategy seeks to identify all the impacts and consequences of flooding faced by Derbyshire. It aims to deliver strong community engagement,

partnership working, to establish priorities and set meaningful objectives for the Council that will evolve over future years. Promoting and supporting personal resilience will be a core element within the delivery plan of this Strategy, empowering local communities to make local choices and to enable them to understand and manage flood risk at a local level.

The Draft LFRMS is attached in Appendix 'A'. The document has been divided into two parts:

Part One – Has been designed to provide general information about flooding and flood risk, who to call and how local people can help themselves to become more resilient to the impacts of flooding.

Part Two – Focuses on the more technical details of understanding flood risk in Derbyshire. It provides an action plan detailing how the Council intends to coordinate the management of future risks and the potential resource implications.

The main documents will be supported by Guidance Notes and a Strategic Environmental Assessment.

The FWMA requires LLFAs to ensure that adequate scrutiny arrangements are put in place to review the Strategy.

To assist in the development of the LFRMS, a Scrutiny and Performance Working Group was established and members of the Flood Risk Management Team have presented to the working group incrementally through the production of the draft LFRMS.

Following a press release, the draft LFRMS will be made available on the Council's web site for a period of twelve weeks. A short questionnaire will accompany the information on the website to ensure that the local people of Derbyshire have an opportunity to comment upon the content of the Strategy.

(3) **Financial Considerations** There will be financial considerations relating to this strategy which will be evaluated once the consultation has been completed. The final strategy and resource implications will be presented to Cabinet for consideration at a future meeting.

(4) **Legal Considerations** The publication of the LFRMS is a statutory requirement of the FWMA 2010.

Other Considerations

In preparing this report the relevance of the following factors has been considered: prevention of crime and disorder, equality and diversity, human resources, environmental, health, property and transport considerations.

(5) **Key Decision** No.

(6) **Call-In** Is it required that call-in be waived in respect of the decisions proposed in the report? No.

(7) **Background Papers** Held on file within the Economy, Transport and Environment Department. Officer contact details – James Biddlestone, extension 38563.

(8) **OFFICER'S RECOMMENDATION** That the Cabinet Member approves the draft Local Flood Risk Management Strategy for public consultation.

Mike Ashworth
Strategic Director – Economy, Transport and Environment

Derbyshire County Council's

Local Flood Risk Management Strategy

December 2014

Part 1



Part 1 of Derbyshire's Local Flood Risk Management Strategy has been designed to provide you with general information about flooding and flood risk, who to call and how you can help yourself become more resilient to the impacts of flooding.

Part 2 of the Local Flood Risk Management Strategy focuses on the more technical details for understanding flood risk in Derbyshire, our action plan for how we intend to coordinate the management of the future risks and how we can fund our flood risk management functions and initiatives.

There are a number of **Guidance Notes** that support the information within the Local Flood Risk Management Strategy. They can be viewed on our website www.derbyshire.gov.uk/flooding.

The screenshot shows the Derbyshire County Council website. The header includes the council's logo and name, a search bar, and a navigation menu with links to various services. The main content area is titled 'Flooding' and provides information about flood risk in Derbyshire. It includes a list of responsibilities, a list of links to related documents, and a section about the council's role as the Lead Local Flood Authority. On the right side, there are two sidebars: 'Get prepared!' with a 'DERBYSHIRE PREPARED' logo and a link to the preparedness website, and 'Flooding in Midlands' with a table showing the number of severe flood warnings, flood warnings, and flood alerts.

DERBYSHIRE
County Council
Improving life for local people

I'm looking for...

Business and economy Community and living Education and learning **Environment** Leisure and culture Social care and health Transport and roads Working for us Your council

Environment

Flooding

Responsibilities

Reporting flooding

Identifying flood risk

Preliminary Flood Risk Assessment

Strategy

SUDS

Ordinary watercourse consents

Asset register

Emergency preparedness for flooding

Enforcement section 25 LDA

Land Drainage Consent

Formal flood investigations

Flooding

Many people within Derbyshire live in flood risk areas.

Here we provide information on:

- Organisations involved in [managing flood risk in Derbyshire and their responsibilities](#)
- [identifying](#) if you are at risk from flooding
- [reporting](#) flooding
- flood protection and resilience measures
- cleaning up after a flood.

As well as this you can find information about our new role, responsibilities and duties as the Lead Local Flood Authority under the Flood And Water Management Act 2010 including:

- Our [Local Flood Risk Strategy](#) for Derbyshire
- Derbyshire's [Preliminary Flood Risk Assessment](#) (PFRA)
- Our responsibility for consenting changes to [ordinary watercourses](#) under the Land Drainage Act (1991).
- Our duty to create and maintain an [asset register](#) of all structures deemed to have a significant flood risk impact.
- Our [duty to investigate flood events within Derbyshire](#).
- Our upcoming role as the Sustainable Drainage Systems ([SuDS](#)) Approval Body ([SAB](#)).

Get prepared!

DERBYSHIRE PREPARED

Visit Derbyshire Prepared to keep informed and prepared for possible emergencies.

Derbyshire Prepared website (opens in a new window)

Flooding in Midlands

	0 Severe Flood Warning
	0 Flood Warning
	0 Flood Alert

Tue Dec 9 10:18:09 UTC 2014

► Sign up for flood warnings



Foreword

“Communities within Derbyshire have over the years been subjected to the severe physical, emotional and economic impacts and consequences of flooding. It is now widely believed that flood events are likely to become more frequent as the effects of climate change develop. The consequences of this flooding will likely see greater risks to life, the wider economy and the environment of Derbyshire. Therefore we must look for ways in which we can adapt and become more resilient to flooding. In response to this, Derbyshire County Council has developed its first Local Flood Risk Management Strategy.

This strategy is a key milestone for the County Council; the newly defined Lead Local Flood Authority for Derbyshire. It provides the first opportunity for documenting how flooding will be strategically managed by the County as a whole, integrating the work already achieved by Government Bodies, Water Companies, the County Council, communities and individuals. This strategy focuses on local flood risk, defined as flooding caused by surface runoff, groundwater and ordinary watercourses (streams, ditches etc.). However, it is appreciated that it is not the source of flooding that is of importance to those affected, but the devastating effects and how to mitigate them from reoccurring.

This strategy provides the opportunity to identify ways in which we can help to minimise the damage from flooding and support those affected. It will also aspire to identify and promote opportunities to make Derbyshire more economically resilient to the increasing risk that flooding may present to our County. This cannot be achieved by the Local Authority alone. The complex and interwoven issues involved with flooding make it necessary to build close local partnerships, to tap into local knowledge and harness existing assets within our local community. Local Government is ideally placed to lead on this but it must be supported by all stakeholders due to the rising demand and shrinking resources available. All must work together to align at the local level, all with shared goals and understanding. This strategy provides the opportunity to present an action plan for how this can be done.

The key aim of this strategy is to provide a document that is useful for the residents and businesses of Derbyshire providing support and guidance whilst putting the residents of Derbyshire at the heart of all decision making”.

Dean Collins - Cabinet Member for Highways, Transport and Infrastructure

WHY IS THIS DOCUMENT IMPORTANT TO YOU?

Extreme weather events are predicted to occur more often and we cannot stop flooding from happening. However, we can look for ways to minimise the damage caused and support those affected.

This document forms the framework within which communities can have a greater say in local flood risk management decisions to help improve life for local people. It also provides a common source of information for the residents and businesses of Derbyshire.

1. WHAT IS A LOCAL FLOOD RISK MANAGEMENT STRATEGY?

Derbyshire County Council (DCC) has a legal duty under the Flood and Water Management Act (FWMA, 2010) to produce a Local Flood Risk Management Strategy (hereafter referred to as 'the strategy'). The strategy is a document that explains how we will coordinate services from across the County with the key aim of mitigating flood risk.

2. FLOODING AND FLOOD RISK

What is flooding?

Flooding is the result of water covering land which is normally dry. Flooding can be an important source of nutrients for agriculture and for recharging groundwater sources. Flooding can, however, result in wide ranging environmental, social and economic impacts when it interacts with the human environment. Floods can develop over days as a result of water taking its time to reach a watercourse and overwhelming it. Flash floods generate quickly and with little warning and can be dangerous.

What causes flooding?

Natural causes of flooding include:

- Abnormally heavy rainfall and thunderstorms over a short time period;
- Prolonged, extensive rainfall; or
- Rapid snow melt.

Although flooding is a natural phenomenon, its impact upon the surrounding environment and population is determined by both human and natural factors. The natural catchment response to rainfall is determined by factors such as steepness of the land, the amount/type of vegetation, and the catchment geology.

It is an increasingly common occurrence that human influences on a catchment affects local flood risk. This can include:

- Loss of undeveloped (greenfield) land and increase in impermeable hard surfaces;
- Insufficient or poor maintenance of watercourses and drainage infrastructure (culverts, pipes, bridges, trash screens, storage tanks etc.); and
- Rural land management practice (deforestation, compaction, ploughing etc.).

What is flood risk?

The definition of 'risk' is the combination of the probability (likelihood or chance) of an event happening and the consequences (impact) of it occurring. Floods can happen often or rarely and have minor or major consequences. Where the probability and the consequences of flooding are high, then an area is considered to be at a high risk of flooding. Areas at high risk of flooding are considered to be a high priority in Derbyshire. - Please refer to **Part 2, Section 20** for more information.

Flood Risk = Probability x Consequences

3. WHAT TYPES OF FLOOD RISK ARE THERE?

Floods can arise from a number of different sources with widely varying consequences depending on the magnitude of the storm event and the susceptibility of the receiving community. Following the national floods of summer 2007, Central Government initiated an independent review into national flood risk management led by Sir Michael Pitt. One of the recommendations from Sir Michael Pitt's review was that:

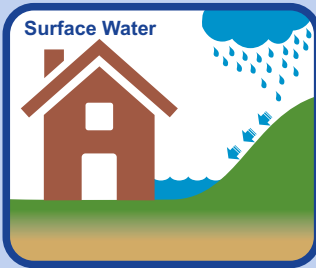
“the role of local authorities should be enhanced so that they take on responsibility for leading the co-ordination of flood risk management in their areas”.

Local sources of flood risk

In April 2010, the FWMA implemented a number of recommendations from Sir Michael Pitt's review. The FWMA brings in new roles and responsibilities for local authorities. In particular, the Act defines the role of DCC as a Lead Local Flood Authority (LLFA). As the LLFA, DCC has:

“an overarching lead role for coordinating the management of local flood risk across the County of Derbyshire”.

Therefore, the **County Council** is responsible for coordinating the management of flood risk from local sources in Derbyshire as illustrated on the following page. Please note, Derby City Council is a separate LLFA managing local flood risk within the City Council boundary.



Surface water flooding is caused by the build-up of water on surfaces because it cannot soak into the ground due to it being hard paved, frozen, baked solid etc., due to the lay of the land, or where rainfall exceeds the infiltration capacity of the soil. It often occurs during intense or prolonged rainfall events.

Contact Derbyshire's Flood Risk Management (FRM) team on (01629) 538563



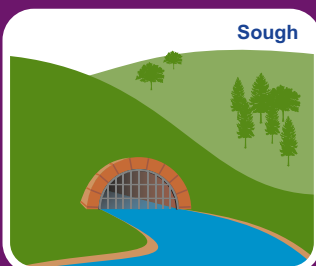
Ordinary watercourses are any watercourses that are not a Main River (statutory designated watercourses) that carry a flow of water. Often ordinary watercourses are smaller brooks, drainage channels, ditches, cuts, dikes, sluices, soughs or culverts that may only convey water for a short length of time in a year. Flooding from ordinary watercourses can occur when heavy and/or prolonged rainfall causes the watercourse to break its banks or when blockages occur (for example by debris or when infrastructure fails).

Contact Derbyshire's FRM team on (01629) 538563



Groundwater flooding occurs when the water table (the water level below ground) rises above the ground surface. During periods of heavy and prolonged rainfall, the water level in the ground may rise to such an extent that it seeps into property basements, or the emergence of groundwater at the surface (can often be a natural spring) may cause damage to properties and infrastructure. Some areas are known to be more prone to groundwater flooding than others due to the naturally high level of the water table level in that area.

Contact Derbyshire's FRM team on (01629) 538563



Due to the historic mining and mineral extraction operations in Derbyshire, networks of old stone soughs (drainage channels, sometimes known as adits) exist beneath the grounds surface in parts of the County. At present, DCC has very limited knowledge of the location, condition, alignment and impacts of these soughs on flood risk. Soughs are known to be abundant in the Derbyshire Dales District and High Peak Borough areas of Derbyshire.

For further guidance on soughs please call the FRM team on (01629) 538563.

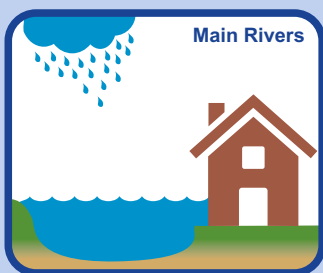
The **District/Borough Councils** of Derbyshire provide assistance with local flooding issues and work collaboratively with DCC's FRM team.



Highway flooding (non-trunk roads) is the accumulation of surface water on the adopted Highway network. Highway flooding may be caused by blockages or capacity issues in Highway drainage systems, or simply by sheer volume of rain water falling on the carriageway, which the existing drainage network cannot cope with. The **County Council's Highways Area Management Division** has the responsibility to manage flood risk on the county's non-trunk roads.

Contact Derbyshire's Highways team on (01629) 533190

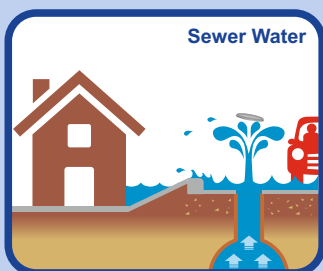
Other sources of flood risk



Main Rivers are larger rivers that can span several counties but also include some smaller watercourses (those which are deemed to require specialist management). Department For Environment, Food And Rural Affairs (Defra) have set the criteria for defining these rivers as Main Rivers in England and Wales.

The **Environment Agency** is responsible for the management of flood risk from Main Rivers.

Contact the Environment Agency on (03708) 506 506



Sewer flooding can occur when large volumes of rainwater enter the public sewer system or when the public sewer system becomes blocked.

Water companies are responsible for managing the risk of flooding from sewers and water mains.

Contact Severn Trent Water on (0800) 783 4444

Contact Yorkshire Water on (0345) 124 24 24

Contact United Utilities on (0345) 672 3723

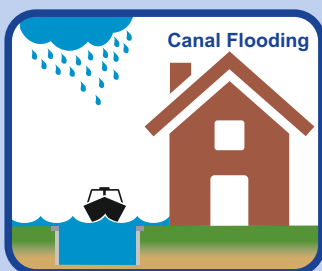
Flooding from **private sewers** is the responsibility of the land owner.



Reservoir flooding occurs when a reservoir fails or breaches resulting in this water escaping and flooding on to the adjacent land and, or properties. Reservoirs are artificially created ponds or lakes that are usually formed by building a dam (wall), across a river or watercourse. This type of flooding is considered to be very low risk as it is highly unlikely to occur.

DCC's Emergency Planning team is responsible for developing emergency plans for reservoir flooding for the County. The Emergency Planning team work closely with emergency services, reservoir operators and the Environment Agency to develop these plans.

Contact Derbyshire's Emergency Planning team on (01629) 538364



Canal flooding can be as a result of excessive surface water running off or discharging to an artificially created waterway. The water levels within canals can vary (although not as much as rivers) due to many factors including proximity to controlled/uncontrolled inflows, lock usage etc. The relevant **Navigating Authority** (Canal and River Trust or DCC) administer the canal network across Derbyshire.

Contact Derbyshire County Council on (01629) 533190

Contact the Canal and River Trust on (0303) 0404040



Highway flooding (trunk roads) is the accumulation of surface water on the strategic road network.

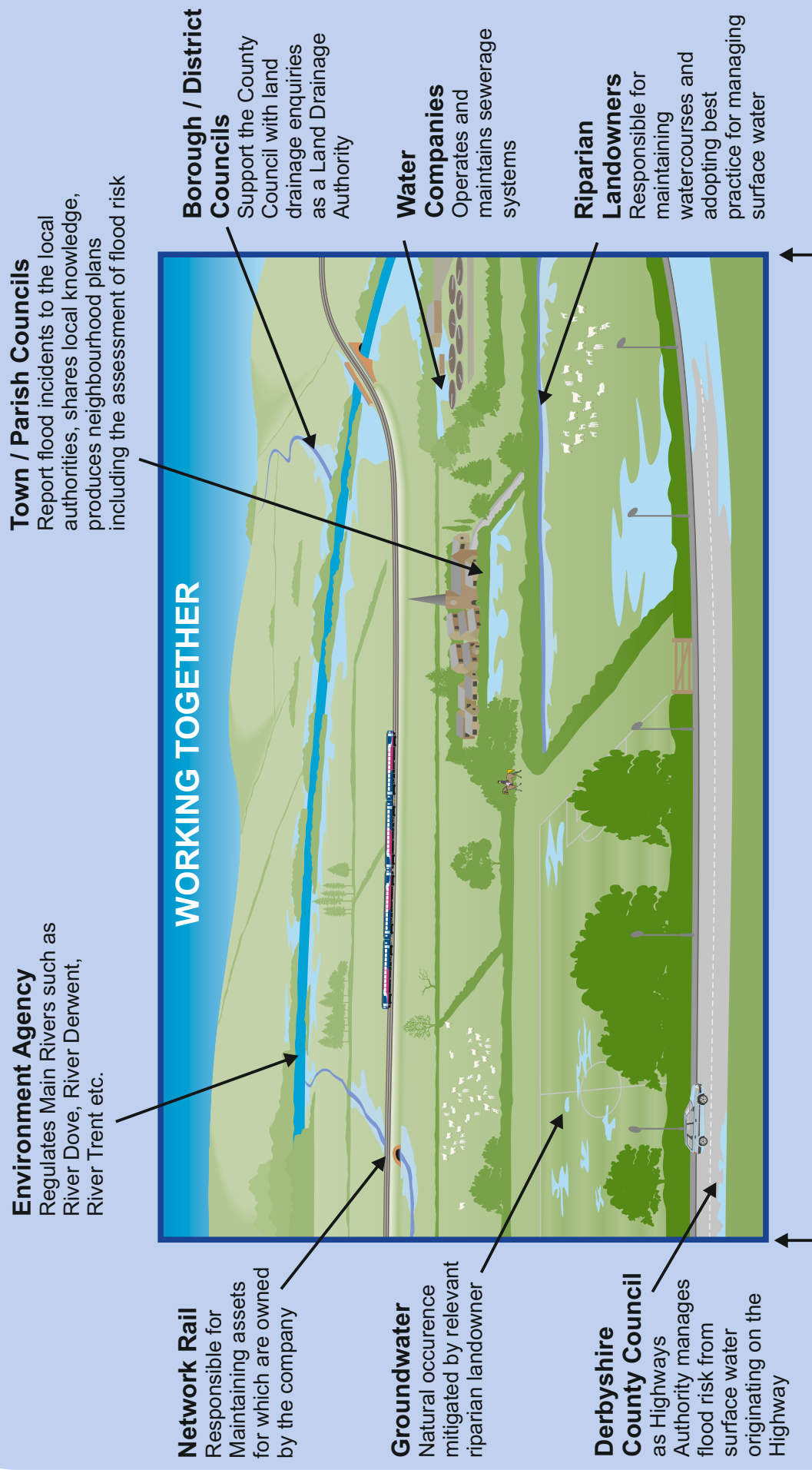
The responsibility for flooding to major trunk roads (motorways and some major A Roads) falls within the duties of the **Highways Agency**.

Contact the Highways Agency on (0300) 123 5000

Further contact details are available at the back of this strategy. For further details on how to report a flooding incident, please refer to the **Flood Reporting and Enquires Investigation Guidance Notes**

DO YOU KNOW OF A COUNTY COUNCIL OWNED CULVERT, GULLY OR OTHER STRUCTURE/ASSET THAT NEEDS CLEANSING?
Please contact Call Derbyshire on (01629) 533190

Figure 1: A working together approach to flood risk management



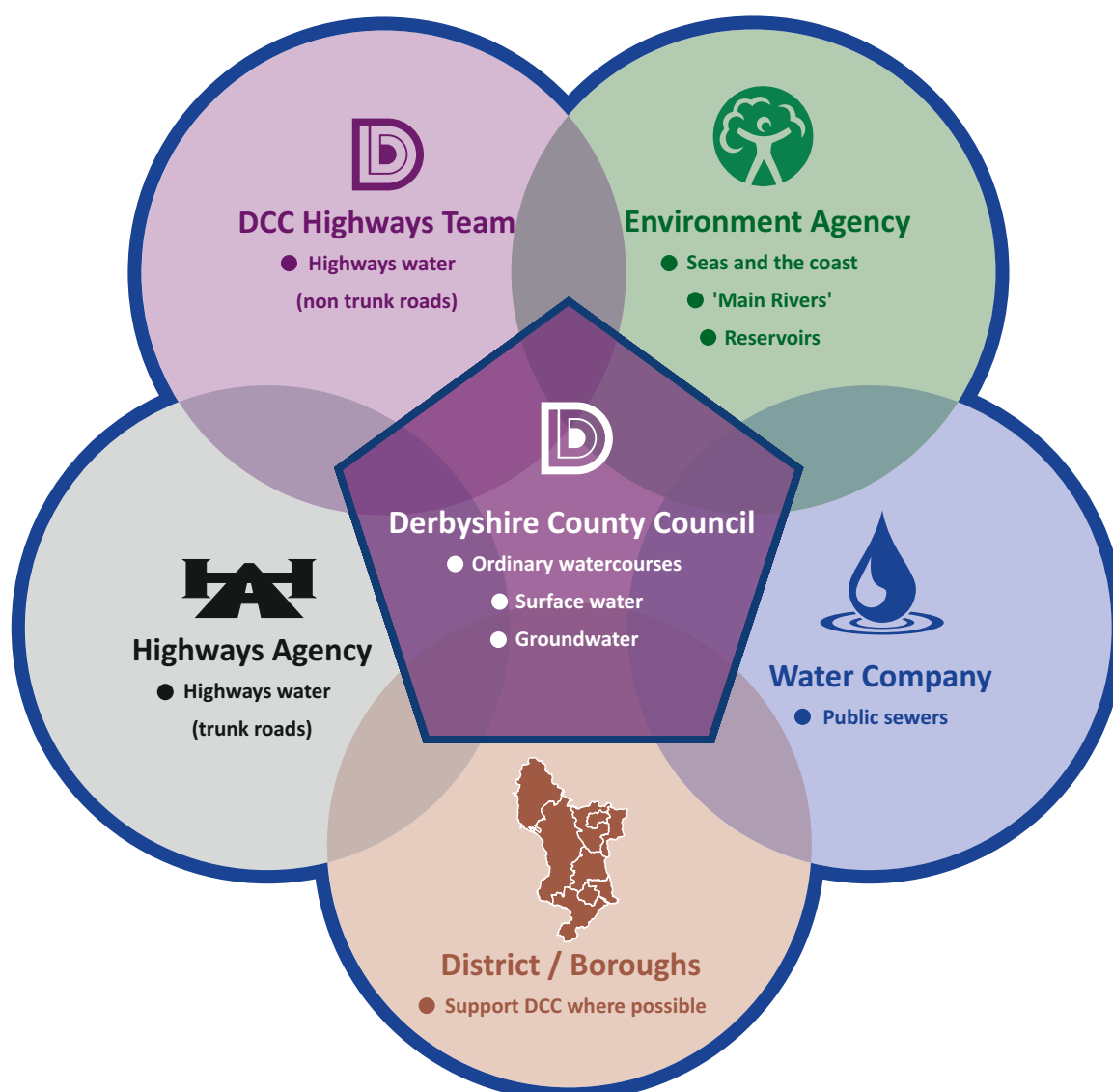
Derbyshire County Council (as Lead Local Flood Authority)
Responsible for coordinating all Risk Management Authorities and coordinating the management of flooding from surface water, groundwater and ordinary watercourses

4. WHO HAS THE RESPONSIBILITY TO MANAGE FLOOD RISK?

Section 3 has identified a number of responsible bodies for managing different sources of flood risk. The Pitt review recommended that the LLFA bring together all relevant bodies, known as Risk Management Authorities (RMAs) to manage flood risk. Legislation that governs the roles and responsibilities of RMAs for Derbyshire can be found in the [Relevant Legislation Strategies and Plans Guidance Notes](#). No single body has the means to reduce all sources of flooding, however, everyone has a part to play in effective flood risk management for the County as illustrated in Figure 1. Figure 2 illustrates the key RMAs that work together for flood risk management in Derbyshire.

For more information regarding the roles and responsibilities for coordinating flood risk, please refer to the [Roles and Responsibilities Guidance Notes](#) and relevant information contained within [Part 2](#) of the strategy.

Figure 2: Key Risk Management Authorities



5. YOUR RESPONSIBILITIES FOR FLOOD MANAGEMENT

Individual property owners/businesses

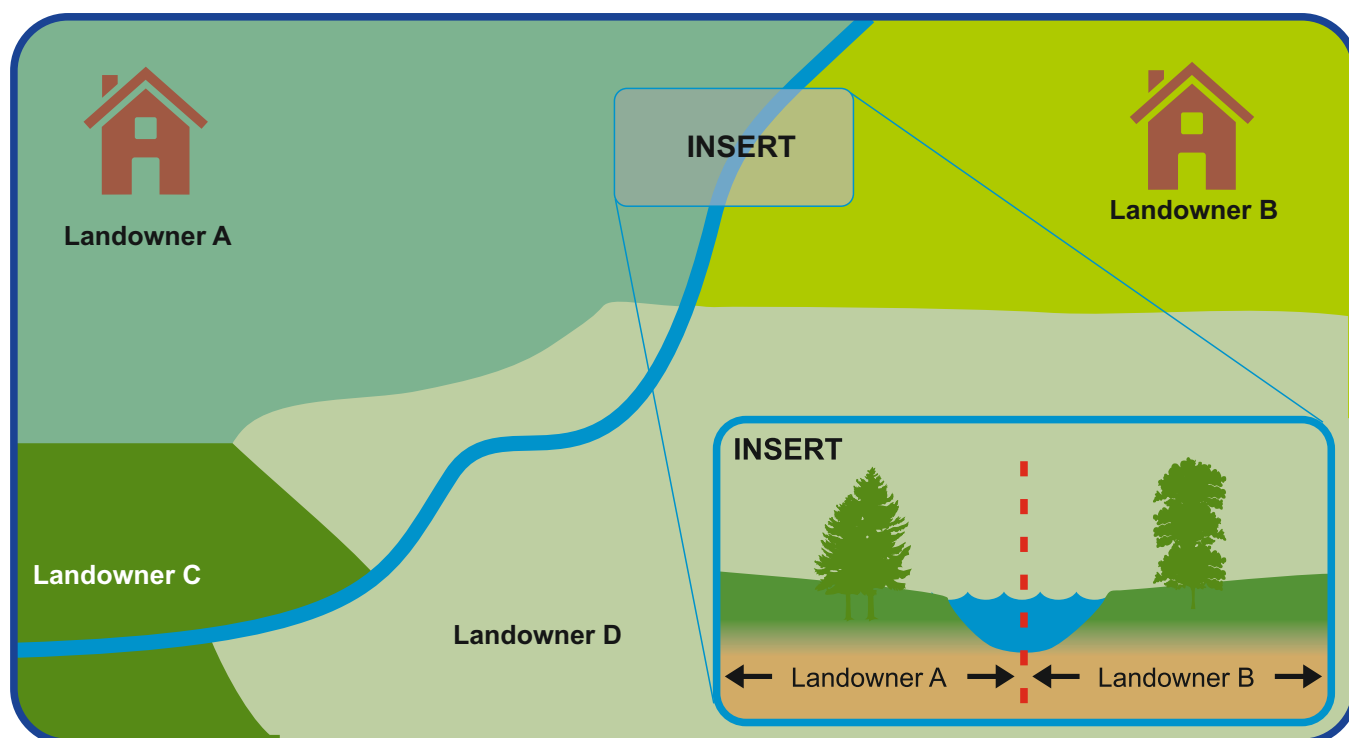
Whilst there are a number of organisations and RMAs who have a responsibility for the management of the different sources of flooding, an individual property owner or business still has the responsibility to take measures to protect their property from flooding. Flooding is a natural process, there may be some instances where flooding still occurs despite all stakeholders meeting their responsibilities and therefore, it is important that business/property owners or residents take appropriate steps to ensure that their property and contents are protected where they are known to be at risk.

Riparian landowners

A riparian landowner is defined as someone who owns land or property next to or over a river, stream, ditch or culvert/pipe that forms part of a watercourse. The riparian landowner is responsible for the section of watercourse which flows through their land. If a land boundary is defined next to a watercourse, it is assumed that the landowner owns the land up to the centre of the watercourse, unless it is owned by someone else.

Figure 3 illustrates how a length of watercourse can have several riparian landowners, each responsible for a section of a watercourse.

Figure 3: Illustration of riparian landownership



Under the Land Drainage Act (1991), riparian landowners have a legal responsibility to maintain the free passage of water through the section of watercourse that flows through their land. The Environment Agency have produced a document that summarises rights and responsibilities of riverside ownership called '**Living on the edge**',¹ For further information please refer to the [Riparian Landownership Guidance Notes](#).

WORKING WITHIN A RIVER OR WATERCOURSE

Before undertaking any work within or in close proximity to a river or watercourse (such as maintenance, constructing new river banks or installing a trash screen), you should check with the Environment Agency (if the work relates to a Main River) or the County Council if the works relate to an ordinary watercourse as you may require appropriate legal consent.

For more information please refer to Derbyshire's website at www.derbyshire.gov.uk/flooding or contact Derbyshire's FRM team

Enforcement Powers

The County Council is committed to promoting the awareness of land drainage laws and riparian landowner responsibilities (please refer to the [Riparian Landownership Guidance Notes](#)). The County Council does have Permissive Powers under Section 25 of the Land Drainage Act to undertake works to maintain the flow of an ordinary watercourse, and to carry out the works in default and recover their expenses from the riparian landowner. It is at the County Council's discretion, however, as to when they exercise these powers. For further information please refer to the [Relevant Legislation, Strategies and Plans Guidance Notes](#) and the [Enforcement Powers Guidance Notes](#).

6. INCREASING RESILIENCE

It is impossible to completely flood-proof a property but there are many things that can be done to reduce the damage of flooding.

How do I find out if I am at risk of flooding?

You can check online whether you are at risk of fluvial Main River flooding or surface water flooding using the Environment Agency's **'Whats in your backyard'**² facility. For other sources, you can contact the relevant organisation directly requesting any historical or predicted flood related information. Please also refer to our **Data Held, Sources and Requests Guidance Notes** for more information.

Preparation for flooding

Even if you think your home or business is many miles from the nearest watercourse and therefore not directly at risk from river flooding, you could still be affected by various other sources of flooding. Preparatory steps taken before flooding occurs or is threatened have been shown to be far more effective and successful as a means of protecting against flooding. If your home or business is flooded it can be costly, not just in terms of money and time, but also emotionally.

The County Council have created a website which provides information and advice to help you better prepare if there was an emergency in the County (**'Derbyshire Prepared'**³).

The Environment Agency offers guidance for householders and small businesses **'Prepare your property for flooding'**⁴ and **'A guide to preparing your business for flooding'**⁵.

You can read online **guidance on how to reduce the impact of flooding from groundwater**⁶. Please also refer to the **Groundwater Guidance Notes**.

For guidance on how to prepare for/protect yourself from sewer flooding, please contact your relevant water company. There is also guidance material available online for **Yorkshire Water**⁷, **Severn Trent Water**⁸ and **United Utilities**⁹.

Table 1 illustrates some preparation techniques that can be employed to help you become more resilient to the impacts of flooding. For further information please refer to the **Before, during and after a flood** and **Self Resilience Guidance Notes**.

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

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

3. www.derbyshireprepared.org.uk

4. <https://www.gov.uk/government/publications/sandbags-how-to-use-them-to-prepare-for-a-flood>

5. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/292937/LIT_5284_ab06c2.pdf

6. <https://www.gov.uk/government/publications/flooding-from-groundwater>

7. <http://www.yorkshirewater.com/your-water-services/flooding-advice.aspx>

8. <http://www.stwater.co.uk/households/waste-water-and-sewers/sewer-flooding>

9. <http://www.unitedutilities.com/been-flooded.aspx>



Sandbags

Sandbags, if laid correctly, offer some (short term) protection against flood water or can divert water away. The Environment Agency (EA) has produced guidance for **'How to use sandbags properly for flood protection'**¹⁰ which is available online. The County Council can offer a pack of empty sand bags to residents known to be at flood risk. The County Council's **current policy for sandbags**¹¹ is available online or a hard copy provided on request.



Alternatives to sandbags

There are many alternative products to sandbags that may be easier to transport (lighter). These types of products have advantages and disadvantages in comparison to using sandbags. More information in relation to one of the alternative products can be obtained in **Flood Sax Guidance Notes***.



Property Level Protection

There are a number of products available on the market for property level protection, all of which offer more advanced protection than traditional sandbags. The **National Flood Forum**¹² offers an independent directory of flood protection products and services, as well as a wealth of other information and guidance.



Flood Plan

An individual property/business flood plan may include the location of gas taps or electricity supply, emergency numbers, information including emergency responders and your insurance company and preparation of emergency supplies, such as food etc. For guidance on how to complete an individual property/householder flood plan, please contact the Environment Agency or speak to a member of the FRM team.



Flood Warnings

The Environment Agency offers a flood warning service to subscribers and a live flood warning map (updated every 15 minutes online) for large parts of the country, particularly those areas affected by flooding from Main Rivers. You can sign up to the **Environment Agency's Flood Warning Service**¹³ online or telephone 0345 988 1188.

* There are many alternative products to sandbags available, however, Derbyshire County Council has procured FloodSax through a competitive tender process. This is subject to constant re-evaluation.

Table 1: Guidance for helping you become more resilient to flooding

10. <https://www.gov.uk/government/publications/sandbags-how-to-use-them-to-prepare-for-a-flood>

11. http://www.derbyshire.gov.uk/environment/flooding/emergency_preparedness/resilience_and_sandbags/default.asp

12. <http://www.nationalfloodforum.org.uk/>

13. <https://www.gov.uk/sign-up-for-flood-warnings>

Insurance against flood damage

DCC's FRM team actively encourage the take up of flood protection insurance, and promote property level protection and flood resilience measures which can help reduce insurance premiums.

If your property has suffered flood damage in the past, there is a history of flooding in your neighbourhood or you are located within an identified flood risk area, it can be difficult to find flood insurance cover. Defra has produced guidance available online for **obtaining flood insurance**¹⁴ in high risk areas. The **National Flood Forum**¹⁵ has developed a Charter for Flood Friendly Insurance which promotes companies that demonstrate a fresh approach to flooded households. If you are concerned about flood insurance or are having trouble getting insurance, please visit the **National Flood Forum**¹⁶ website.

In June 2013, Central Government announced an agreement with the insurance industry to guarantee affordable flood insurance for people in high risk areas. 'Flood Re' stands for flood reinsurance and is a not-for-profit fund financed by insurers, which will cover the cost of flood claims from high risk homes. Please visit the **Association of British Insurers**¹⁷ website for further information about Flood Re.

If you have experienced flooding, you may be reluctant to report the incident to your insurer or the relevant body. However, it is important that you report any flooding to the relevant responsible organisation so that the data can support future work and guide any potential future investment for flood risk management (please refer to the **Flood Reporting** and **Enquiries Investigation Guidance Notes**).

Flood data currently available (including that held by insurance companies and the County Council) provides information on flood risk for the general location but does not identify individual properties. This data does not take account of specific features of your home or business. You may be able to demonstrate that your property is at a much lower risk of flooding than the general area in which it is situated and therefore, increase your chances of obtaining a more competitive insurance quote.

14. <https://www.gov.uk/government/publications/obtaining-flood-insurance-in-high-risk-areas>

15. <http://www.nationalfloodforum.org.uk/trouble-getting-insurance/>

16. <http://www.nationalfloodforum.org.uk/trouble-getting-insurance/>

17. <https://www.abi.org.uk/Insurance-and-savings/Topics-and-issues/Flooding>

You may wish to consider the following list of suggested tips for when seeking to obtain flood insurance:

- Contact a specialist insurance broker who has access to insurers that specialise in flood risk cover.
- Understand your risk better by going online or contacting the County Council and Environment Agency to obtain flood risk data.
- Consider investing in a flood mitigation survey from a property level protection product provider.
- Consider flood resilience measures or products appropriate for your property.
- Sign up for the Environment Agency's Flood Warning Service.
- Join a local flood action group.

7. INCREASING RESILIENCE – COMMUNITY WORKING

Effective communication is key to promoting awareness of flood risk management issues, better relations between the County Council and the local communities, empowering localism and encouraging people to take action before, during and after a flood event.

DCC is committed to providing a valuable and effective public service and recognise that local communities can offer a wide range of perspectives and a local understanding. DCC recognises the importance of local communication in the management of local flood risk and the promotion of potential mitigation measures and/or solutions. DCC aims to focus on the needs of the individuals, communities and businesses of Derbyshire, including them at the heart of decision making and the management of risk.

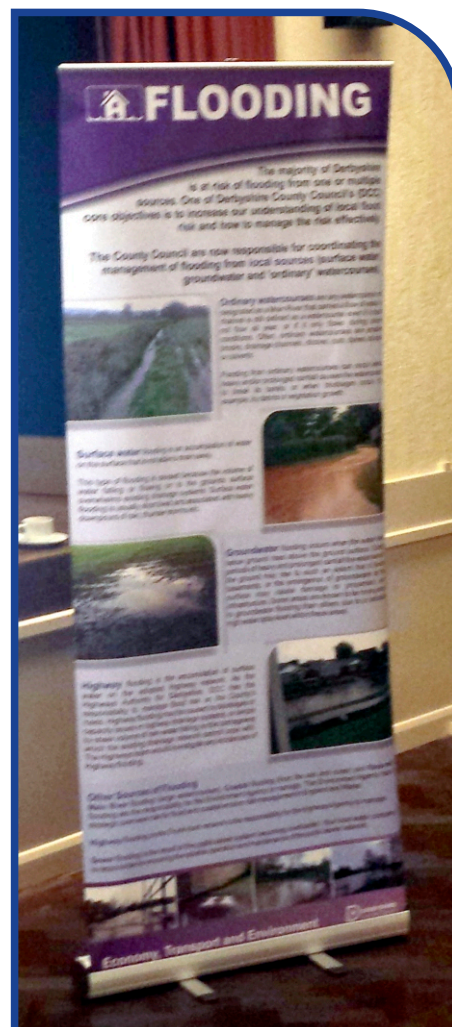
A key objective for this strategy is to build relationships and trust at a local level to ensure that people are well informed and feel supported by flood risk management services. This will be achieved by:

- Increasing awareness via public consultation events, newsletters and online resources.
- Working closely with Parish/Town Councils and community groups.
- Actively encouraging all parties to get involved and be proactive.
- Acknowledging local concerns.
- Liaising and engaging with local businesses and individuals regarding any proposed mitigation measures.
- Encouraging discussion and debate to progress towards a collective action plan.

As with all aspects of the work of the FRM team, our priorities in targeting communication will be aimed at those who are most at risk. Please refer to the **Communication Strategy Guidance Notes** for further details.

Flood awareness events and evening meetings

A successful way of ensuring that all members of a local community can have a say, report their side of the story and be heard by members of the FRM team or other RMAs, is through flood awareness events and/or evening meetings. A flood awareness event or evening meeting offers the opportunity to inform communities of the FRM team's current understanding of the flood risk to that community and offers the community the chance to inform or confirm that understanding. It also gives the opportunity for the FRM team to highlight any other sources of flood risk that a community may not already be aware of and vice versa. A flood awareness event or public meeting may have representation from a number of RMAs or charitable organisations such as the **National Flood Forum**¹⁸. DCC has arranged and held a number of flood awareness events and public meetings, often after a flood event, to offer help, support and guidance. Members of the FRM team also regularly attend public meetings supporting Parish/Town Councils or the local community presenting a variety of information from flood risks and relevant RMAs to flood warden schemes.



IS YOUR COMMUNITY AT RISK OF FLOODING? DO YOU WANT TO GET INVOLVED IN THE DISCUSSION OF FLOODING AT A LOCAL LEVEL?

Find out if your local area has a flood action group - Contact DCC's FRM team for more information.

18. A national charity dedicated to supporting and representing communities and individuals at risk of flooding (www.nationalfloodforum.org.uk)

Flood warden schemes

DCC's FRM and Emergency Planning teams have begun to implement 'Flood Warden Schemes' across the County (in particular those areas that have been affected by flooding), working closely with the Environment Agency, Town/Parish Councils and local communities. The main aim of the Flood Warden Schemes is to provide the members of communities (known to be at a flood risk) with appropriate resilience equipment and skills to be able to help mitigate the impacts of flooding before the emergency services or any other emergency responder/RMA can attend. Equipment provided can range from portable storage units for equipment to sandbags and personal protective equipment. DCC will work with the Environment Agency, Town/Parish Council and local community to appoint 'Flood Wardens' to act as local contacts providing access to the resources and developing a Community Flood Plan. For more information regarding Flood Warden Schemes or a Community Flood Plan, please refer to [**Flood Warden Schemes Guidance Notes**](#).

Public site visits

Members of the FRM team undertake site visits for the majority of reported flooding concerns or land drainage enquiries. Public meetings are a good opportunity for the FRM team to gather local knowledge and, in turn, provide guidance for personal resilience, effective land management, stakeholder responsibilities etc., whilst also passing on information about the wider drainage catchment.

Flood action groups

Several communities affected by flooding in Derbyshire have already set up Flood Action Groups. These groups are an effective way for affected residents to provide a link between the RMAs and the wider community. The groups also help to identify ways to work together with an aim of reducing flood risk in an area.

To find out whether your community already has a flood action group or to obtain guidance of how to set one up, please contact the FRM team.

Community level maintenance

Some communities in Derbyshire have adopted informal arrangements for local people to be proactive and check assets in the event of a severe weather warning. These arrangements can be very productive at a local level and reap great benefits for areas that suffer regularly or in times when the demand for support/response outweighs the available resource.

DERBYSHIRE CASE STUDY: LOCAL FLOOD ACTION GROUP

A community driven group within the area of Alfreton has experienced recurrent internal flooding from fluvial, surface water and sewer sources. In response to the flooding, residents formed the Alfreton Flood Action Group to provide a support group mechanism.



One of the key factors to the success of the group was the introduction of regular quarterly meetings which enabled DCC and Severn Trent Water to update the residents on the progress towards investigating the sources of flooding, identifying potential mitigation options and identifying possible funding opportunities.

The first success for the Alfreton Flood Forum was an alleviation scheme carried out by Severn Trent Water to upsize parts of the local combined sewer network to lower the risk of sewer flooding. DCC, in close liaison with the Alfreton Flood Forum, looked towards identifying possible options to reduce flood risk to the properties from the local ordinary watercourse. To assist in the funding of the project, DCC submitted a bid to obtain national flood management funding which was granted/secured in 2014, with works planned to start in approximately 2016.

8. INCREASING RESILIENCE – WORKING WITH LANDOWNERS AND DEVELOPERS

Both urban and rural landowners must work together across entire catchments to find solutions for flood risk management. A balanced approach for flood risk management is required that looks at:

- reducing rural runoff by improving soil infiltration and increasing water interception;
- reducing urban runoff through Sustainable Drainage Systems (SuDS); and
- looking for opportunities for storing or holding water.

Planning and development

DCC's FRM team is not currently a statutory consultee to the planning process under current planning law. As it stands, the Environment Agency is consulted and does provide flood risk comments in some cases. DCC's FRM team is working with the Local Planning Authorities (LPAs) (District/Borough Authorities) to ensure that any proposed development in Derbyshire takes into account flood risk and utilises sustainable drainage techniques. For more information about planning and development, please refer to **Part 2** of the strategy.

As the FRM team is not a statutory consultee, ultimately it is up to the LPAs as to what development is approved or rejected. If you have concerns over any proposed or recently constructed development, you are advised to liaise with the relevant Planning Development/Enforcement team at your District/Borough Council; contact details of which are detailed below:

District/Borough	Telephone
Amber Valley Borough	(01773) 570222
Bolsover District	(01246) 242424
Chesterfield Borough	(01246) 345345
Derbyshire Dales District	(01629) 761100
Erewash Borough	(0115) 9072244
High Peak Borough	(01298) 28400
North East Derbyshire District	(01246) 231111
South Derbyshire District	(01283) 595795
Peak District National Park	(01629) 816200

Land management

Large parts of Derbyshire are categorised as rural farmland. Farmers are key in helping to mitigate flood risk for the County, as often large amounts of farmland drain towards urban communities. Farmland is a huge asset and requires careful management so as not to cause or exacerbate flooding for the upstream/downstream community, or have an economic impact on the farmers' livelihood.

The National Farmers Union (NFU) is actively campaigning to ensure that agriculture is properly valued in flood risk management and rural flooding is managed effectively. The NFU is also working to make continued improvements in soil management. For example, farmers are participating in Catchment Sensitive Farming.

DCC will continue to work closely with landowners, including farmers, to ensure that all views are taken into account in managing flood risk across the County.

For guidance about how you can manage your land more effectively to help reduce flooding, please refer to the [Catchment Land Management Guidance Notes](#).

9. HOW WILL DERBYSHIRE COORDINATE THE MANAGEMENT OF LOCAL FLOOD RISK FOR DERBYSHIRE?

Strategic vision

The strategic management of flood risk in Derbyshire can deliver one of the following three levels of service:

1. **Do Nothing - acknowledging that flood risk will increase with climate change, increasing the risk of social, economic and environmental damage;**
2. **Maintain – keep at pace with climate change by improving flood risk management to maintain current level of protection; or**
3. **Improve – Where possible take proactive steps to reduce social, environmental and economic damages due to flooding.**

In an attempt to create a Derbyshire which has an overarching aim of achieving economic, social and environmental resilience from all sources of flood risk, DCC's strategic decision is to aim to achieve Option 3, to **'Improve'**.

This strategy aims to reduce the impact that flooding has on Derbyshire's residents, visitors and businesses and within this process strive to achieve and take advantage of any opportunities to improve the wider environment of Derbyshire.

Local objectives for managing flood risk

As the overarching lead for coordinating the management of flood risk in Derbyshire, the FRM team has developed six key objectives for local flood risk management.

Objective	Description
1	To further develop an understanding of the flood risk to Derbyshire and the impacts of climate change working collaboratively with all other Risk Management Authorities and relevant groups/bodies to ensure a coordinated response to flood risk management for Derbyshire
2	To continue to work with all relevant bodies to ensure appropriate and sustainable development in Derbyshire
3	To aim to reduce the level of flood risk to the residents of Derbyshire
4	To continue to prioritise limited resources effectively to support communities most at risk in Derbyshire
5	To continue to help and support the local communities of Derbyshire to manage their own risk
6	To continue to help protect and enhance the natural environment

For a breakdown of actions relating to the above six local objectives please refer to Part 2 of the strategy.

10. MONITORING AND REVIEW OF THE STRATEGY

The strategy will be informed and updated by on-going reviews, risk assessments and new flood data. Any changes in flood risk management legislation will also prompt a review of the strategy. The strategy will be monitored by measuring performance indicators from the Action Plan set out in **Part 2** of the strategy.

GLOSSARY OF TERMS AND ABBREVIATIONS

TERM	DEFINITION
Critical asset	A structure or feature that is considered to have a significant effect on a flood risk in its area
DCC	Derbyshire County Council
Defra	Department For Environment, Food And Rural Affairs
EA	Environment Agency
EU	European Union
Flood Warden Scheme	An initiative to provide a community with equipment, skills and training to enable them to be more resilient to flooding
FRM	Flood Risk Management
FWMA	Flood and Water Management Act
LFRMS	Local Flood Risk Management Strategy
LLFA	Lead Local Flood Authority
Local sources of flooding	Flooding from surface water, groundwater and ordinary watercourses
LPA	Local Planning Authorities (District/Borough Councils)
NFU	National Farmers Union
Pitt Review	An independent review of the summer 2007 floods undertaken by Sir Michael Pitt
Resilience	Capability to anticipate risk, limit impact and recover quickly
RMA	Risk Management Authority
Soughs	An underground channel for draining water from a mine
SuDS	Sustainable Drainage Systems

Part 2 of the Local Flood Risk Management Strategy focuses on the more technical details for understanding flood risk in Derbyshire, our action plan for how we intend to manage the future risks and how we can fund our flood risk management functions and initiatives.

FLOODING - WHO TO CALL?

In the event of an emergency, particularly if there is a danger to life, you should always call the Police, ambulance or fire brigade. The County Council also provides an Emergency Planning Service that can assist during an emergency flood event. The Emergency Planning team can be contacted on **(01629) 538364** or **emergency.planning@derbyshire.gov.uk**. Out of normal working hours contact can be made through Call Derbyshire on **(01629) 533190**. Please be aware that the FRM team does not provide a reactive service whilst flooding is ongoing, but will be advising emergency responders.

	Query	RMA	Contact Details
  	Surface water, groundwater, ordinary watercourse flooding	Derbyshire County Council	flood.team@derbyshire.gov.uk 01629 538563
	Highway water (non-trunk roads)	Derbyshire County Council	etenetmanadmin@derbyshire.gov.uk 01629 533190
 	Main River, reservoir and coastal flooding	Environment Agency	enquiries@environment-agency.gov.uk 03708 506 506
	Sewer Flooding	Severn Trent Water Yorkshire Water United Utilities	STW - 0800 783 4444 YW - 0345 124 24 24 UU - 0345 672 3723
	Highway Water (trunk roads)	Highways Agency	ha_info@highways.gsi.gov.uk 0300 123 5000

Derbyshire County Council's

Local Flood Risk Management Strategy

December 2014

Part 2 - Technical Guidance



Part 2 of Derbyshire's Local Flood Risk Management Strategy focuses on the more technical details for understanding flood risk in Derbyshire, our action plan for how we intend to manage the future risks and how we can fund our flood risk management functions and initiatives.

Part 1 of the Local Flood Risk Management Strategy has been designed to provide you with general information about flooding and flood risk, who to call and how you can help yourself become more resilient to the impacts of flooding.

There are a number of supporting **Guidance Notes** that support the information within the Local Flood Risk Management Strategy that can be viewed on our website www.derbyshire.gov.uk/flooding.

The screenshot shows the Derbyshire County Council website. The header includes the council's logo and name, a search bar, and a navigation menu with categories like Business and economy, Community and living, Education and learning, Environment, Leisure and culture, Social care and health, Transport and roads, Working for us, and Your council. The 'Environment' category is selected, leading to a sub-menu where 'Flooding' is highlighted. The main content area is titled 'Flooding' and contains a paragraph stating that many people in Derbyshire live in flood risk areas. It lists several topics for which information is provided: organisations involved in managing flood risk, identifying flood risk, reporting flooding, flood protection and resilience measures, and cleaning up after a flood. Below this, it mentions that users can find information about the council's new role as the Lead Local Flood Authority under the Flood and Water Management Act 2010, including details on the Local Flood Risk Strategy, Preliminary Flood Risk Assessment (PFRA), responsibilities for consenting changes to ordinary watercourses, the duty to create and maintain an asset register, the duty to investigate flood events, and the upcoming role as the Sustainable Drainage Systems (SuDS) Approval Body (SAB). On the right side, there are two sidebars. The top one, 'Get prepared!', promotes the 'DERBYSHIRE PREPARED' initiative and provides a link to the Derbyshire Prepared website. The bottom one, 'Flooding in Midlands', displays flood warning status for Severe Flood Warning (0), Flood Warning (0), and Flood Alert (0), along with a timestamp and a sign-up link for flood warnings.

DERBYSHIRE
County Council
Improving life for local people

I'm looking for...

Business and economy Community and living Education and learning **Environment** Leisure and culture Social care and health Transport and roads Working for us Your council

Environment
Flooding
Responsibilities
Reporting flooding
Identifying flood risk
Preliminary Flood Risk Assessment
Strategy
SuDS
Ordinary watercourse consents
Asset register
Emergency preparedness for flooding
Enforcement section 25 LDA
Land Drainage Consent
Formal flood investigations

Flooding

Many people within Derbyshire live in flood risk areas.

Here we provide information on:

- Organisations involved in [managing flood risk in Derbyshire and their responsibilities](#)
- [Identifying](#) if you are at risk from flooding
- [reporting](#) flooding
- flood protection and resilience measures
- cleaning up after a flood

As well as this you can find information about our new role, responsibilities and duties as the Lead Local Flood Authority under the Flood And Water Management Act 2010 including:

- Our [Local Flood Risk Strategy](#) for Derbyshire
- Derbyshire's [Preliminary Flood Risk Assessment](#) (PFRA)
- Our responsibility for consenting changes to [ordinary watercourses](#) under the Land Drainage Act (1991)
- Our duty to create and maintain an [asset register](#) of all structures deemed to have a significant flood risk impact
- Our [duty to investigate flood events within Derbyshire](#)
- Our upcoming role as the Sustainable Drainage Systems ([SuDS](#)) Approval Body ([SAB](#)).

Get prepared!

DERBYSHIRE PREPARED

Visit Derbyshire Prepared to keep informed and prepared for possible emergencies.

Derbyshire Prepared website (opens in a new window)

Flooding in Midlands

- 0 Severe Flood Warning
- 0 Flood Warning
- 0 Flood Alert

Tue Dec 9 10:15:09 UTC 2014

[Sign up for flood warnings](#)

11. DERBYSHIRE OVERVIEW

Derbyshire is a Shire County within the East Midlands. The northern part of Derbyshire overlaps with the Pennines, a chain of hills and mountains forming the backbone of England. The County comprises an area of 2,625km² with a population of approximately 1 million (including Derby City) and borders on Greater Manchester, Yorkshire (south and west), Nottinghamshire, Leicestershire, Staffordshire and Cheshire. The city of Derby is a Unitary Authority.

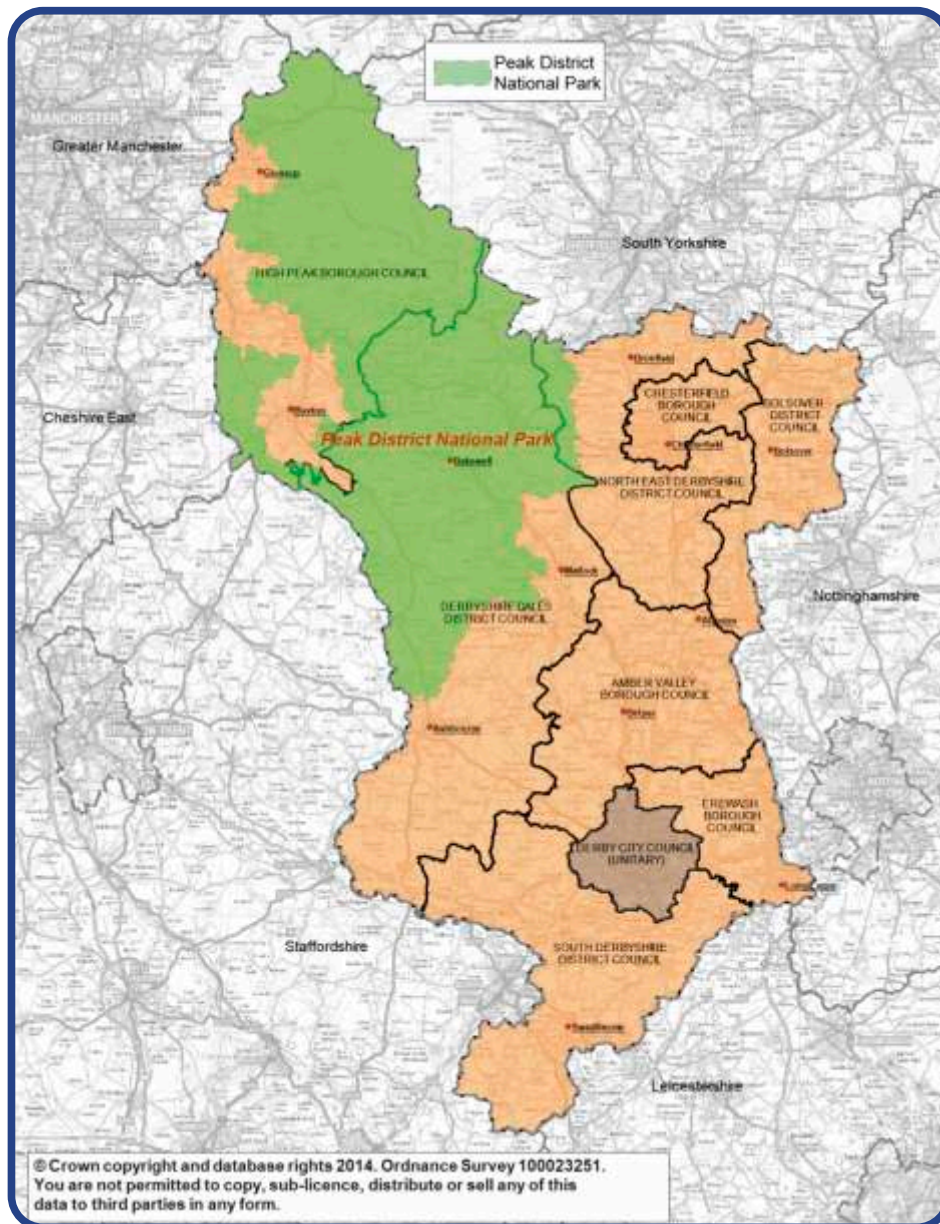


Figure 4: District and Borough Councils of Derbyshire.

The County contains 30 towns with between 10,000 and 100,000 inhabitants as well as a large amount of sparsely populated agricultural land. There are eight District / Borough Authorities encompassed within Derbyshire shown on Figure 4. The Peak District National Park encompasses parts of the High Peak Borough, Derbyshire Dales District and North East Derbyshire District. Derbyshire is a very diverse County in terms of setting and natural landform.

Sources of flooding/flood risk data

Derbyshire County Council (DCC) have access to a range of data from across the County from a range of sources including fluvial (river) flood maps, surface water flood maps and indication of groundwater levels. This data is held on the County Council's computer network and varies in its quality, although the County Council aim to hold the highest possible quality data available. For more information about the different types of data available please refer to the [Data Held, Sources and Requests Guidance Notes](#).

Requesting and sharing information

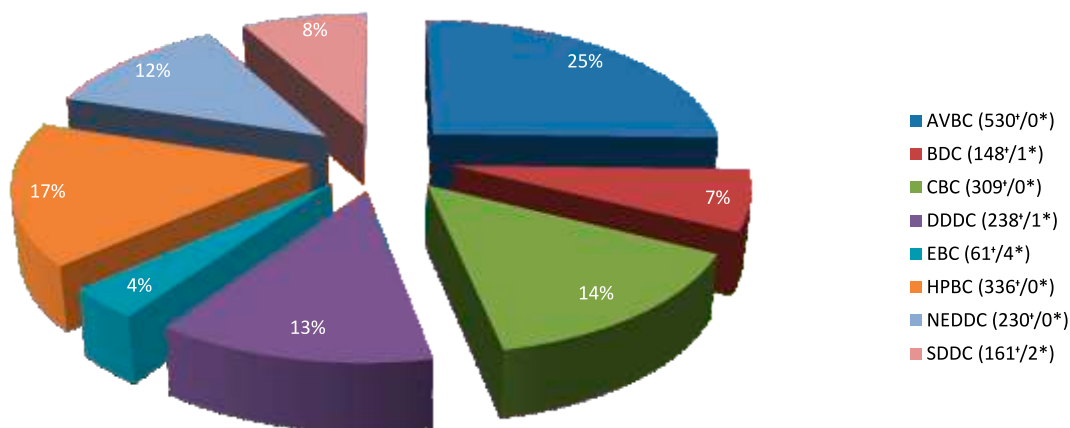
The Flood Risk Management (FRM) team have provided a number of datasets to, and have also received a number of datasets from a range of Risk Management Authorities (RMAs) in Derbyshire. The FRM team aim to share as much knowledge and data as possible to encourage integrated flood risk management. Further information relating to these requests for information can be found in the [Data Held, Sources and Requests Guidance Notes](#).

12. CURRENT UNDERSTANDING OF FLOOD RISK IN DERBYSHIRE

Historical setting

Prior to DCC becoming the Lead Local Flood Authority (LLFA) for Derbyshire (please refer to [Part 1, Section 3](#) of the strategy for more details) flood risk was mainly coordinated and managed by the Environment Agency. The County Council's remit was previously limited to maintaining Highway assets and managing flood water that fell within the adopted Highway curtilage. The District/Borough Councils had a flood risk management function at a local level as a Land Drainage Authority (working closely with the Environment Agency). For more information on who to call to discuss a flood enquiry please refer to [Part 1, Section 3](#) on the strategy.

Following the establishment of the LLFA, historical flood information was gathered from the Environment Agency, District/Boroughs and a range of other organisations totalling in excess of 1800 reported flooding enquiries. Since then DCC are continuing to update the data set with further reported incidents.



*Total number of recorded flood events in District/Borough
 *Number of recorded significant flood events in District/Borough

Figure 5: Distribution of flood risk management enquiries by District/Borough up to December 2014

Figure 5 illustrates the distribution of reported flood incidents across the District/Boroughs reported up to December 2014. The DCC historic flooding records continue to grow as the FRM team continues to evolve under its LLFA duties. For more information about the different sources of flood risk please refer to **Part 1, Section 3** of the strategy.

Highway Drainage and Asset Maintenance

Derbyshire has over 5,500km of adopted Highway incorporating over 150,000 gullies. Given the size, complexity and the historic development of the Highway network, records of all related drainage infrastructure continue to evolve and develop over time. Due to this, understanding flood risk to the Highway and from the Highway can be extremely problematic.

DCC inspect and maintain Highway drainage structures. This includes trash screens, culverts and bridges that are within the Highway boundary or that serve the Highway. However, the relevant Water and Sewerage Company are responsible for maintaining public sewers which lie within the Highway and individual landowners are responsible for maintaining structures in private landownership.

Without appropriate maintenance the level of protection provided by drainage assets and structures can decline. However, it is difficult to identify critical flood risk areas or those assets of greatest importance without the necessary data to inform this decision. DCC are therefore currently running a number of projects to expand our understanding of flood risk and drainage provision within the County's Highway network.

Further information relating to DCC's approach to asset management can be found in the **Asset Maintenance, Register and Designation Guidance Notes**. For more information about Highway network management please refer to the **Highway Statutory Duties and Vested Powers Guidance Notes**.

**Do you know of a County Council Asset that we may not be aware of,
or one that may be operating inefficiently due to its condition?
Please contact Call Derbyshire on 01629 533190**

Predictive data

DCC recognise that historical awareness of flood events coupled with modelled or predicted flood risk is critical for understanding where future flood risk is greatest. In many cases, modelled or predicted indications of flood risk to communities can be validated by the comparison of the history of flooding. Often, 'local residents' own experiences of flooding have helped to validate the predictive data that DCC hold which has led to a much greater confidence in predictive data. Localism is key to helping the FRM team develop a greater understanding of the local sources, mechanisms and impacts of flooding faced by a community.

Surface water flood data

The majority of Derbyshire could be at risk of surface water flooding from extreme localised rainfall events regardless of any historical evidence of flooding.

To help to comprehend the scale of surface water flood risk in Derbyshire the FRM team (in partnership with a technical consultant) has produced a modelled representation of surface water flood risk for Derbyshire for several rainfall/storm scenarios. The output of the model illustrates the extent of surface water flooding likely to occur in the modelled rainfall/storm events in each area of Derbyshire.

The model output also illustrates the likely depth of that flooding and the likely motion speed of the water (velocity) at any given point. It is important for the depth and velocity of flood water to be modelled as it can help to identify the most hazardous areas (most threatening to life and property) for surface water flooding. This predicted hazard information can help the FRM team to quantify vulnerable areas (biggest risk to life, property and critical infrastructure), guide future development and also help to guide local communities and improve local resilience.

DCC have undertaken a process whereby the surface water model outputs have been validated against known historic surface water flooding areas. This has highlighted strong correlation with known flood events as illustrated in Figure 6.

Increased confidence in the dataset assists in determining flood risk from surface water and helps in all aspects of flood risk management including planning application reviews, bids for funding and delivery of schemes for mitigating flood risk. A dataset with a robust validation against real events will help DCC to identify those communities at greatest risk and how limited resources may be targeted to provide the best support. For more information please refer to Derbyshire's Action Plan in **Section 14**.

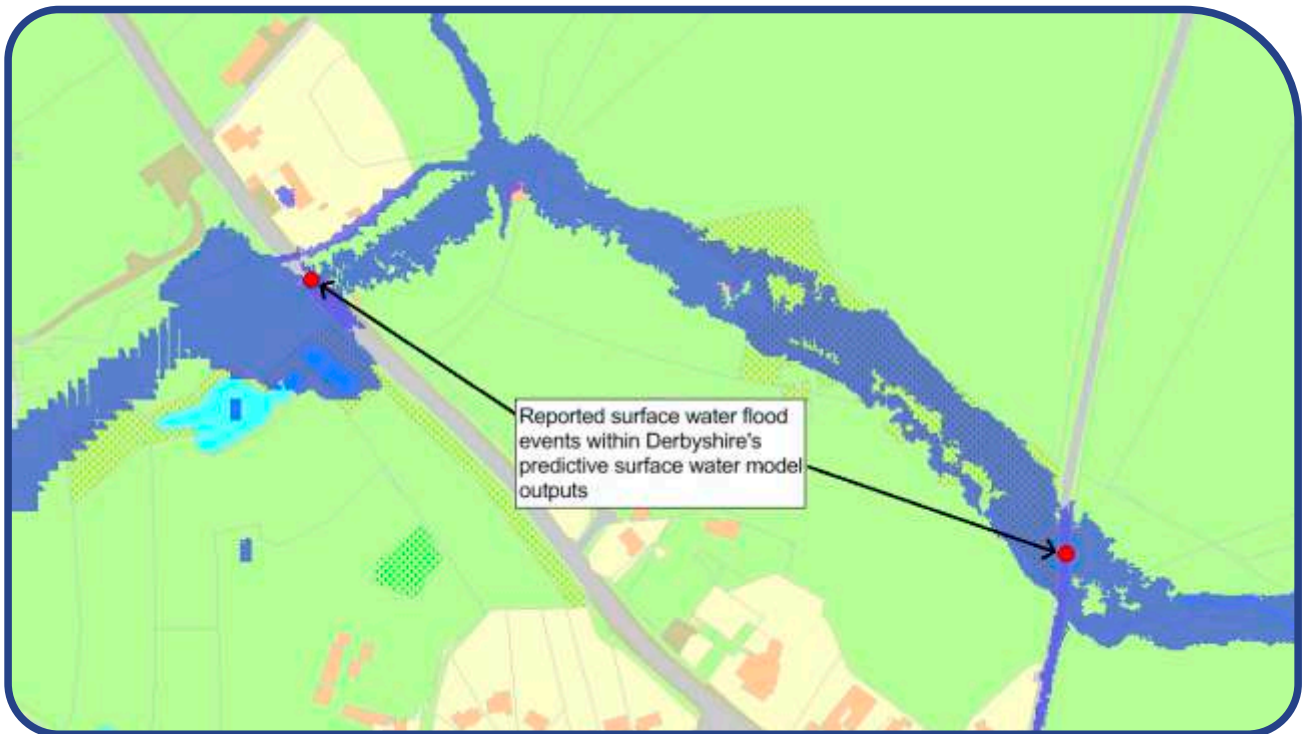


Figure 6: Validation of predictive surface water model data (shown in blue) with reported historical records of surface water flooding (shown by red points)

National Assessment of Flood Risk

In 2008 the Environment Agency carried out a National Assessment of flood risk which identified that 5.2 million – or one in six – residential and commercial properties were in areas liable to flooding across England. 3.8 million, of the 5.2 million, were identified to be at risk of flooding from surface water sources.

Derbyshire's Preliminary Flood Risk Assessment

Derbyshire's Preliminary Flood Risk Assessment (PFRA), completed and published in May 2011, contains a wealth of spatial analysis. The PFRA was completed to assist the understanding of flood risk in Derbyshire. Production of a PFRA was a statutory requirement on DCC under the Flood Risk Regulations (2009).

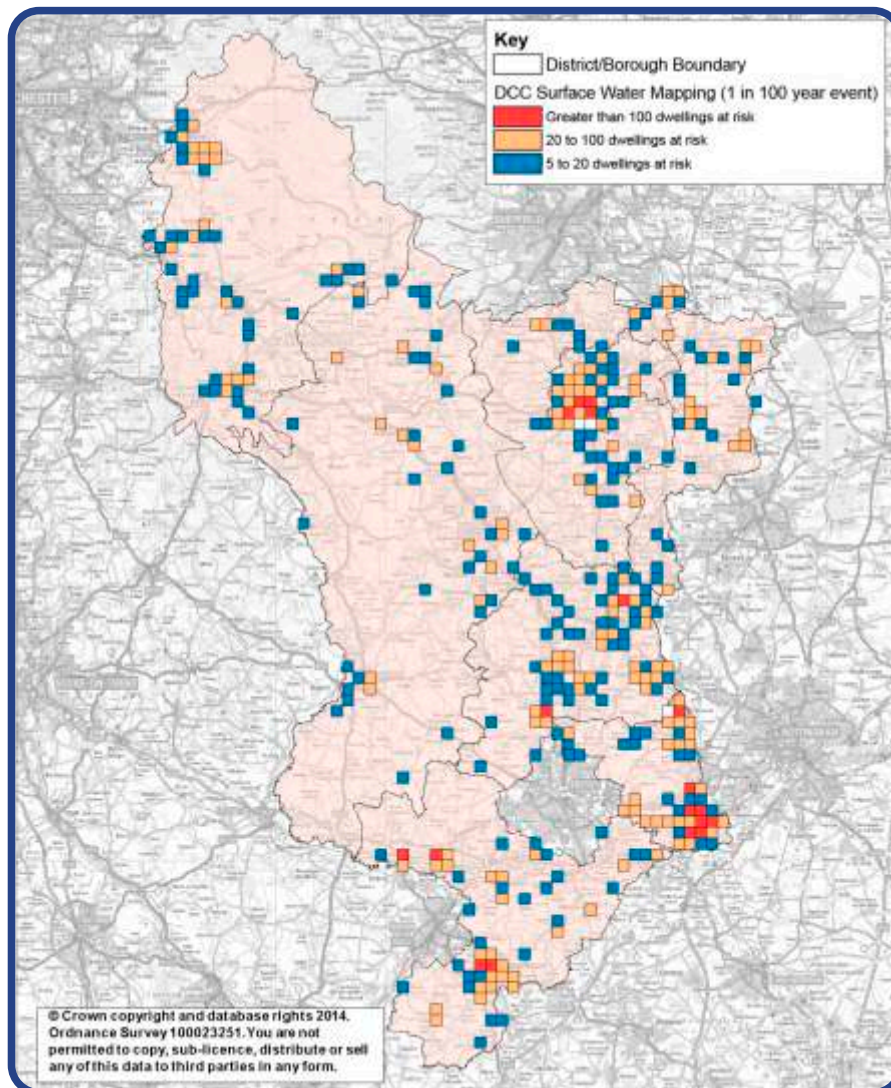


Figure 7: Distribution of kilometre grid squares with a significant risk of residential dwelling surface water flooding, according to PFRA methodology

The PFRA was required to provide a high level overview of existing and potential flood risk from local sources. However, the PFRA identified that no area in the County is considered to be a Significant Flood Risk Area in accordance with the national criteria set by the UK Secretary of State.

In the absence of any nationally recognised Significant Flood Risk Areas, DCC's PFRA used local criteria for significant flood risk for Derbyshire based on rural and urban thresholds, which identified areas of the county by kilometre grid square, that were at an increased risk from surface water flooding. The strategic maps in Figures 7 and 8 represent an update on the analysis detailed in the PFRA completed in 2011.

These maps have been created using an identical process to that detailed in the PFRA, but utilised up-to-date datasets, in particular the DCC Surface Water Flood Maps.

Figures 7 and 8 show clusters of kilometre grid squares that contain increased numbers of residential and non-residential properties at risk of surface water flooding. Spatial analysis like this is a useful tool in strategically identifying areas of Derbyshire that are most at risk of flooding.

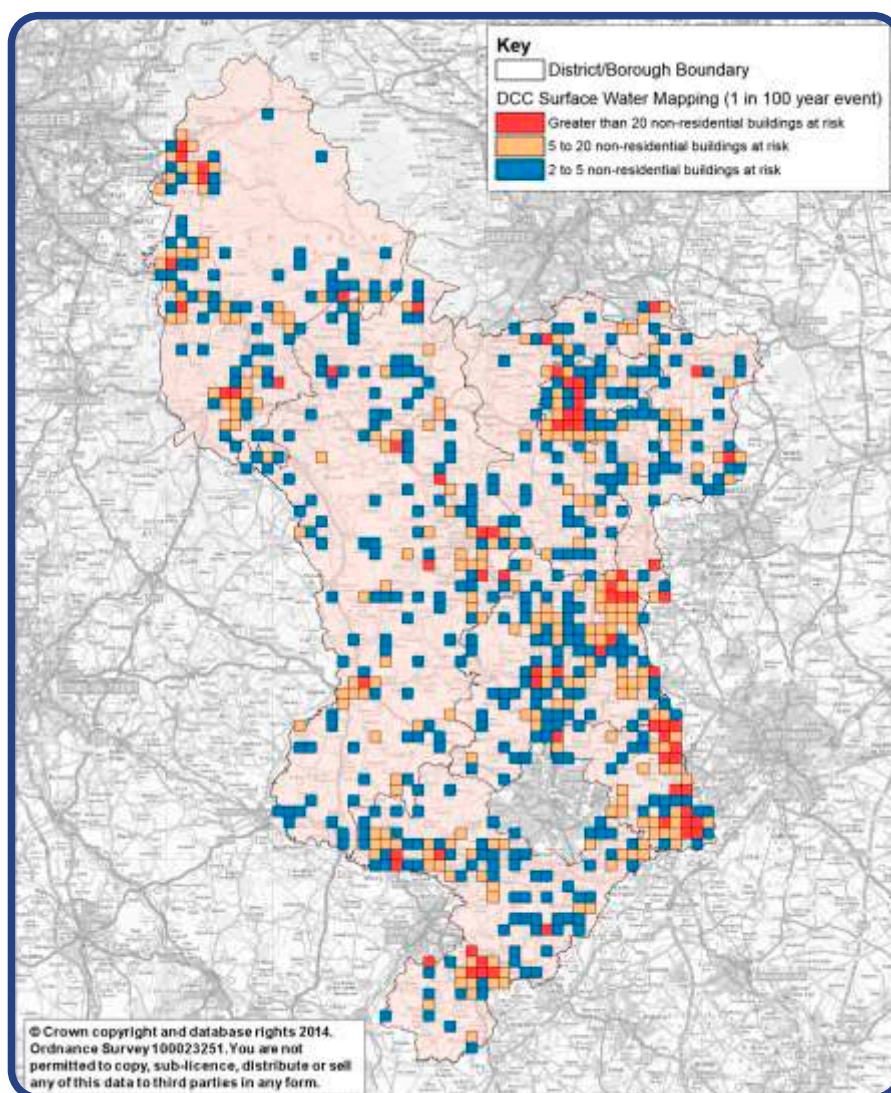


Figure 8: Distribution of kilometre grid squares with a significant risk of non-residential property surface water flooding, according to PFRA methodology

Derbyshire's PFRA covers only flood risk from local sources (surface water, groundwater and ordinary watercourses). Analysis of flood risk from Main Rivers and reservoirs being covered in the relevant **Flood Risk Management Plan**¹⁹. The Flood Risk Management Plan for each River Basin District (RBD) will be published by the Environment Agency by 21st December 2015. All areas of Derbyshire are covered by either the Humber RBD or the North West RBD.

¹⁹ Information on Flood Risk Management Plans can be found by visiting <https://www.gov.uk/flood-risk-management-plans-what-they-are-and-whos-responsible-for-them> or contacting your local Environment Agency office.

Table 2 below provides a summary of the indicative strategic flood risk from surface water by District/Borough. Identifying critical flood risk areas can help to prioritise support for those communities. For example, Chesterfield was identified as being at risk from multiple sources across the Borough. In 2014 DCC submitted a bid for funding for an integrated flood model to evaluate this risk further. Further information can be found in the [Chesterfield Integrated Model Guidance Notes](#).

District/ Borough	No. of dwellings at risk within District/ Borough	No. of km grid squares within District/ Borough	No. km grid squares with significant surface water flood risk	% km grid squares with significant surface water flood risk	Rank
Chesterfield	1802	94	43	45	1
Erewash	2704	146	50	34	2
Amber Valley	1702	320	78	24	3
Bolsover	683	212	37	17	4
North East Derbyshire	751	363	50	14	5
South Derbyshire	2198	419	55	13	6
High Peak	1063	625	52	8	7
Derbyshire Dales	922	923	47	5	8

Significant risk refers to greater than 5 residential dwellings within a kilometre grid square at risk according to the DCC Surface Water Flood Mapping. This reflects the locally agreed thresholds for a significant flood event (5 or more residential dwellings internally flooded) and therefore the obligation for a Section 19 Investigation.

Table 2: Summary of the indicative strategic flood risk from surface water by District/Borough

Derbyshire's PFRA is available to view online or by contacting the FRM team directly. An update of the PFRA is scheduled to be completed in 2016.

Groundwater Flood Data

Due to the very nature of groundwater flooding, it is often the most difficult source of flooding to predict. Groundwater flooding is a natural occurrence which is dictated by complex below-ground processes. For this reason it is difficult to identify precisely which areas are at increased risk of groundwater flooding.

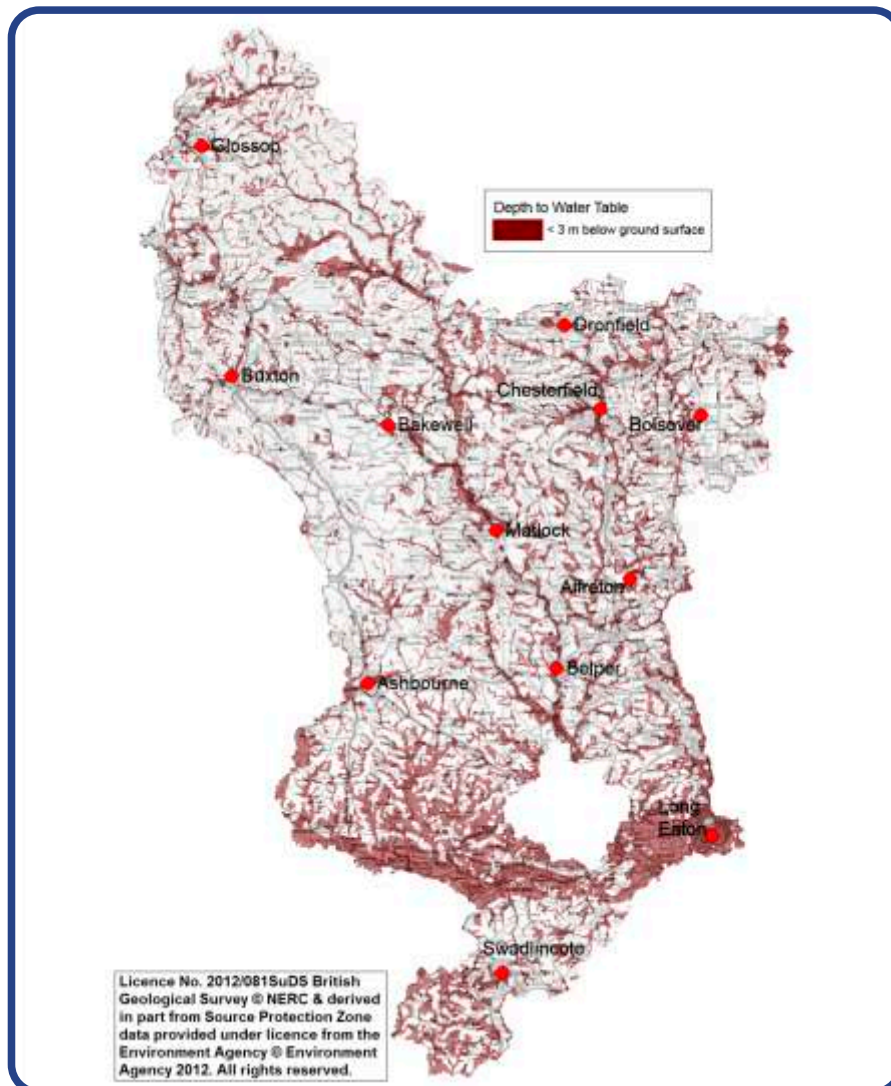


Figure 9: Indicative areas of shallow groundwater in Derbyshire according to the BGS SuDS Dataset

However, Derbyshire has access via a licence to British Geological Survey (BGS) groundwater datasets (for more information please refer to the [Data Held, Sources and Requests Guidance Notes](#)). The dataset includes classification of groundwater depth, geological indicators of flooding and bedrock permeability. The dataset is a useful strategic tool for indicating broad groundwater conditions area-by-area, but still relies on site ground investigation for a detailed analysis. For more information please refer to the [Groundwater Guidance Notes](#).

13. FUTURE IMPACTS ON FLOOD RISK

Climate change projections suggest that the quantity of rainfall is expected to increase alongside an increase in the frequency of intense rainfall events and flash flooding (see Figure 10). This is likely to lead to the exacerbation of all sources of flooding.

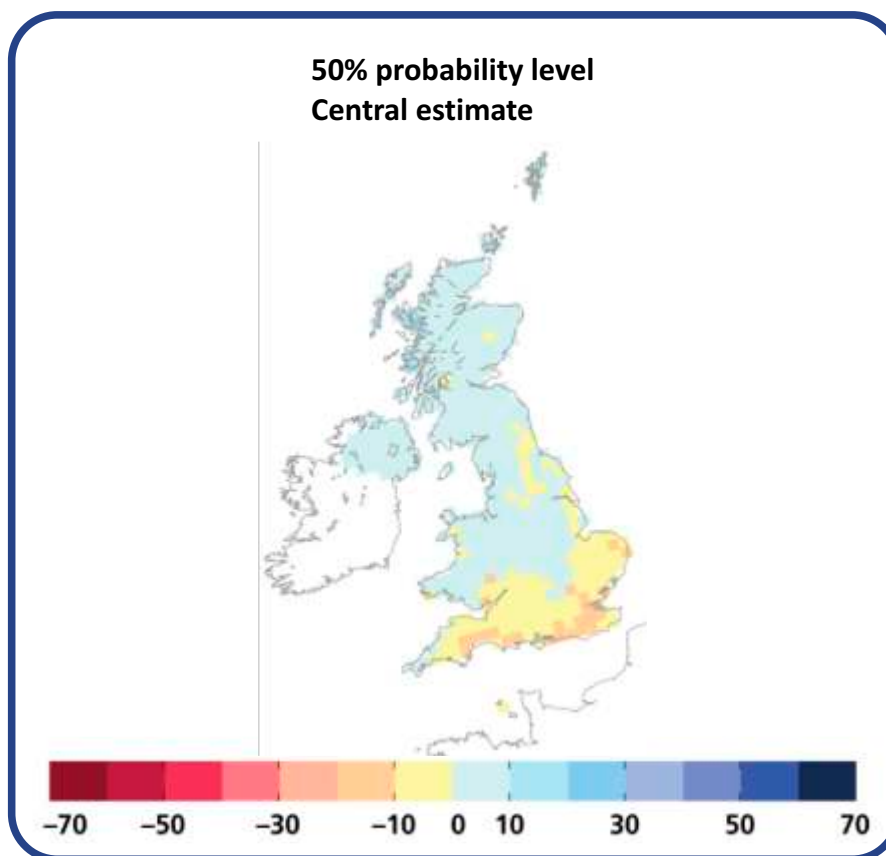


Figure 10: Illustration of the mean predicted change in rainfall on the wettest day of summer (%) for the 2080s (Taken from the UK Climate Projections 09)

DCC's corporate policy towards adaptation to anticipated climate change is detailed in the **DCC climate change adaptation action plan**²⁰. This document details how the Council's services can be made more resilient to climate change. As part of this strategy, DCC's primary objective towards climate change adaptation is to adhere to the recommendations surrounding flood risk determined in the climate change adaptation action plan. Climate change adaptation is heavily embedded within Derbyshire's Local Objectives for flood risk management within this strategy (please refer to Section 14 and **Appendix 1**).

20. http://www.derbyshire.gov.uk/environment/climate_change/default.asp

14. OUR ACTION PLAN FOR MANAGING DERBYSHIRE'S FLOOD RISK

National objectives

The National Strategy has set out strategic aims and objectives for managing flood and coastal erosion risks and measures proposed to achieve them.

The overall national aim is to **ensure the risk of flooding and coastal erosion is properly managed by using the full range of options in a co-ordinated way.**

The national objectives are as follows:

1. Ensure the risk of flooding and coastal erosion is properly managed by using the full range of options in a co-ordinated way.
2. Understand the risks and work together to put in place long-term plans to manage these risks ensuring all plans take account of the aims and objectives of the national strategy.
3. Control development in areas of flood and coastal erosion risk to avoid increasing risk.
4. Reduce the risk of harm to people and damage to the economy, environment and society by building, maintaining and approving flood and coastal erosion management infrastructure and systems.
5. Improve public awareness of the risks related to flooding and engaging with people at risk to make them more resilient.
6. Improve emergency planning and recovery by improving the detection, forecasting and issue of warnings of flooding, planning for and co-ordinating a rapid response to flood emergencies and promoting faster recovery from flooding.

Local objectives

The local objectives for managing flood risk for Derbyshire which demonstrate how we intend to achieve national objectives are illustrated below:

Objective No	Local Objective	National Objectives					
		1	2	3	4	5	6
1	To further develop an understanding of the flood risk to Derbyshire and the impacts of climate change working collaboratively with all other Risk Management Authorities and relevant groups/bodies to ensure a coordinated response to flood risk management for Derbyshire	✓	✓	✓	✓		✓
2	To continue to work with all relevant bodies to ensure appropriate and sustainable development in Derbyshire	✓		✓			
3	To aim to reduce the level of flood risk to the residents of Derbyshire				✓	✓	✓
4	To continue to prioritise limited resources effectively to support communities most at risk in Derbyshire					✓	✓
5	To continue to help and support the local communities of Derbyshire to manage their own risk				✓	✓	✓
6	To continue to help protect and enhance the natural environment	✓			✓		

Key actions

The local objectives will be delivered using a series of key local actions as illustrated in Figure 11.

Local Flood Risk Management Objectives

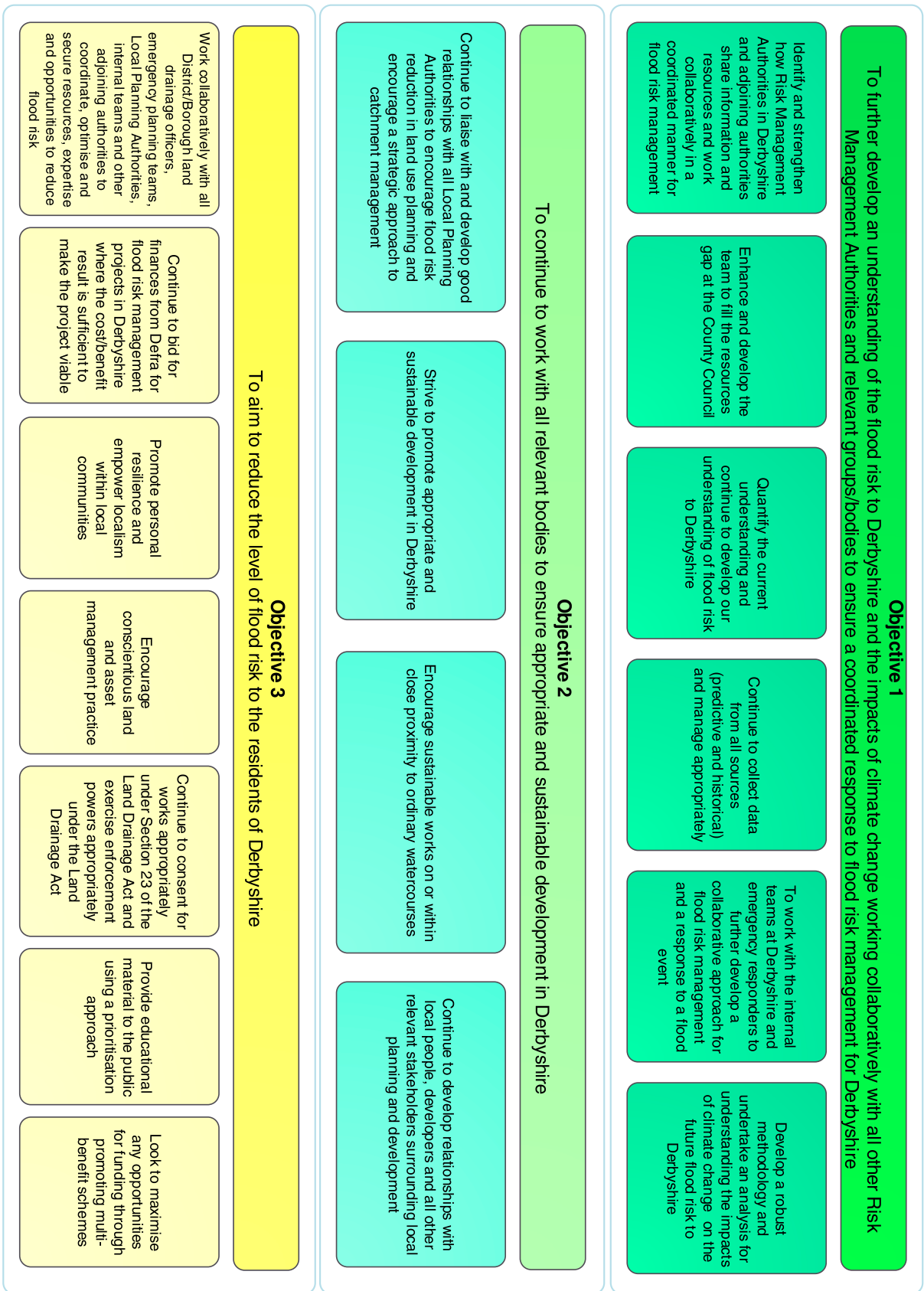


Figure 11: The key actions for the local objectives

Local Flood Risk Management Objectives

Objective 4 To continue to prioritise limited resources effectively to support communities most at risk in Derbyshire

Quantify the current understanding and continue to develop our understanding of flood risk to Derbyshire

Continue to invest resources in flood risk management schemes that are viable for Defra funding

Promote personal resilience and empower localism within local communities

Undertake flood enquiry visits based on priority or in local clusters to manage demand more effectively

Review planning applications using a prioritisation approach

Provide support and guidance during and after a flood event to those communities that need it most

Support the Highways team for implementing the gully cleansing project

Objective 5 To continue to help and support the local communities of Derbyshire to manage their own risk

Develop and action a communication strategy and prioritise communication

Promote personal resilience and empower localism within local communities

Encourage conscientious land and asset management practice

Work with internal Emergency planning team and emergency responders to ensure effective response during an emergency event

Provide educational material to the public using a prioritisation approach

Objective 6 To continue to help protect and enhance the natural environment of Derbyshire

Promote sustainable flood risk management projects and sustainable activities for works within or in close proximity to ordinary watercourses

Support the Environment Agency in implementing the objectives of the Water Framework Directive

Continue to support local environmental groups where appropriate

Figure 11: The key actions for the local objectives (continued)

Priority, timescales and status of key actions

The full Action Plan for implementation of the strategy objectives can be seen in **Appendix 1**. Each key action has been broken down into a series of smaller actions. These actions have each been assigned the following:

- A priority of the action (please refer to Section 20 for prioritisation);

Action Priority	
High	H
Medium	M
Low	L

- A timescale for implementation of the action; and

Action Timescales	
Long (L)	Over 5 years
Medium (M)	2 to 5 years
Short (S)	1 to 2 years

- A status of the action.

Action Status	Description
Continue (C)	Continue to carry out existing role in the future
Develop (D)	Develop and expand upon existing roles or increase existing service area
Establish (E)	Establish a new role or service area
Achieved (A)	Action is already achieved

15. THE JOINT APPROACH

As flooding knows no boundaries and often the source and mechanisms are not easy to distinguish between, the County Council, must work collaboratively with all RMAs in an attempt to ensure Derbyshire is as resilient to flooding as it possible can be.

The County Council has a number of local partnership arrangements/groups to support local flood risk management. These partnership arrangements/groups are intended to ensure that partnerships are managed in ways which enhance the coordination of policy and actions and provide strong accountability and transparency i.e. a clear demonstration of cooperation and the 'added value' of partnership working. These groups also offer the opportunity for the sharing of flood risk management data and good practice. Figure 12 illustrates these partnership arrangements.

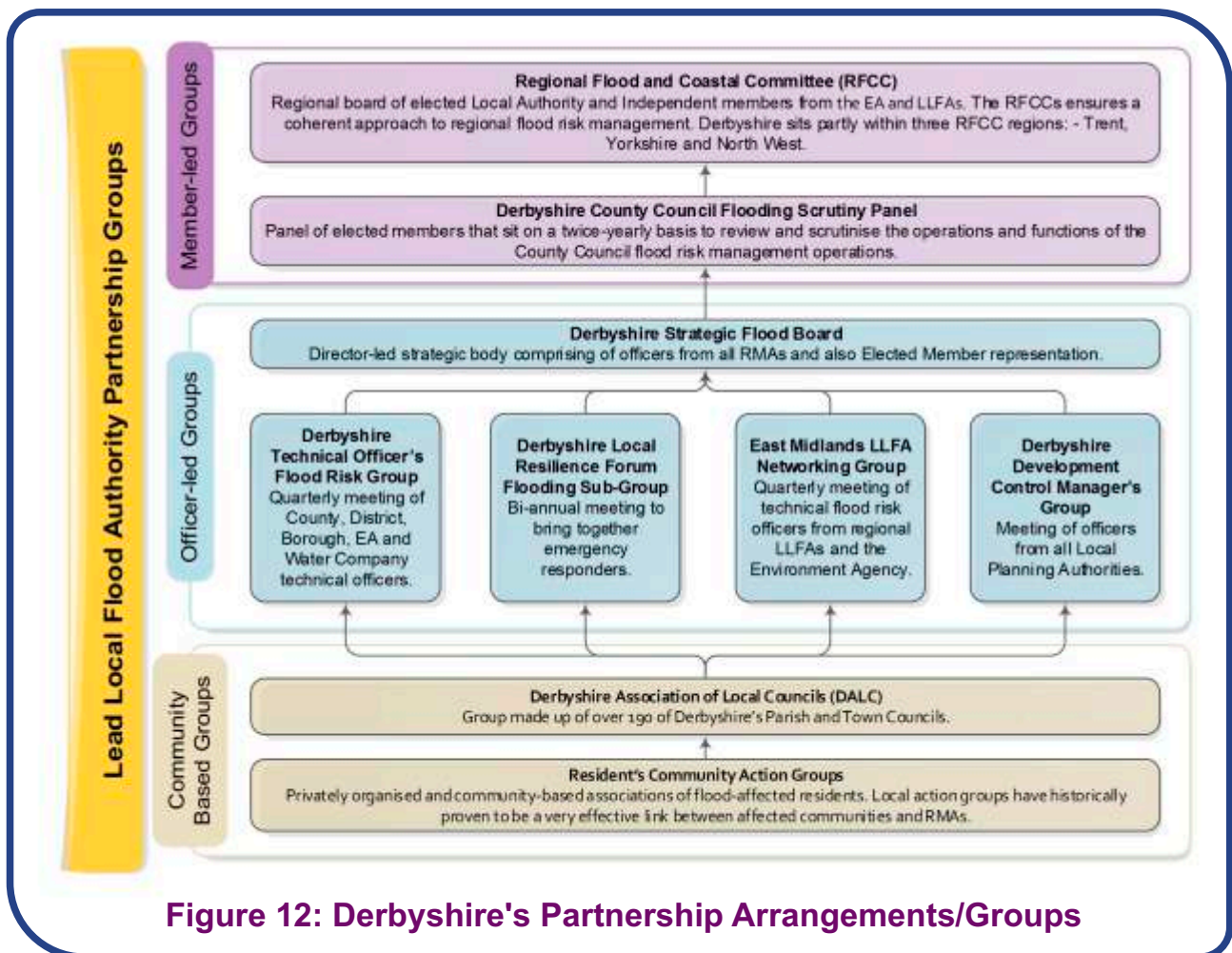


Figure 12: Derbyshire's Partnership Arrangements/Groups

Improvement and scrutiny

DCC have an Improvement and Scrutiny Committee which aim to improve the County Council's service through monitoring the Councils work and making recommendations for improvement. The Committee ensures that the decision-making process is clear and transparent to the public.

DCC's Scrutiny and Improvement Committee has established a Local Flood Risk Management Working Group to oversee how the County Council and its partners respond to the risk of flooding throughout the county and to review and scrutinise its flood risk management functions.

16. PARTNERSHIP FUNDING AND BIDDING FOR MONEY

Our strategy must set out how we intend to fund proposed actions identified in our Local Objectives. There are a number of different funding sources available from national, regional and local sources for flood risk management schemes in Derbyshire which are explained further in the [Funding Guidance Notes](#).

Flood and coastal erosion risk management grant in aid (FCERM GiA)

The key source of national funding available for flood risk management is Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA). However the amount of funding available from this source is limited. DCC are able to bid for this nationally allocated money but any bid submitted is assessed against all nationally submitted bids.

The Regional Flood and Coastal Committees (RFCC) (a group of elected members and independent members with relevant experience for flood risk management established under the Flood and Water Management Act (FWMA)) play an integral role in evaluating these bids at a local catchment level. Consequently these committees have a bearing on which areas receive support for flood and coastal erosion risk management projects. This process is further explained in the [Funding Guidance Notes](#).

local levy

DCC is 'levied' by the Environment Agency under the Environment Agency Regulations (2011) for three RFCC's. The amount of Local Levy the authority paid to each RFCC in 2013/14 is illustrated in the Table 3. Local Levy can be used by the RFCC to support locally important bids for FCERM GiA money which may not attract full national funding through the FCERM GiA process or require a financial boost to be 'nationally significant'.

RFCC Region	Amount of money 'levied' in 2013/14
Midlands	£180,030
North West	£36,419
Yorkshire	£83,922
Total	£300, 371
*Amount levied may vary each year	
Table 3: Levy paid in 2013/14	

For more information about Local Levy please refer to the [Funding Guidance Notes](#).

Other sources of funding

In order to maximise the likelihood of attracting FCERM GiA for projects in Derbyshire the FRM team will continue to work closely with all partnership organisations and bodies to attract all available sources of funding. The likelihood of securing FCERM GiA or even Local Levy funding can significantly increase when other sources of funding are secured. Therefore the more partnership funding a scheme can attract to support a bid the better the chance of the scheme attracting FCERM GiA funding. More information regarding sources of available funding are explained further in the **Funding Guidance Notes**.



HOW DO I OBTAIN FUNDING TO PROTECT MY PROPERTY?

Local communities and/or flood action groups can work with the local Risk Management Authorities to develop a scheme and a bid for National funding. For more information please contact the FRM team.

DERBYSHIRE CASE STUDY: PARTNERSHIP FUNDING

A small community in Pinxton have experienced recurrent internal flooding over the past 20 years. Internal flooding occurs as a result of the interaction between fluvial, surface water, groundwater and sewer sources.

In 2011 Derbyshire County Council submitted a bid to secure funding for a Property Level Protection Flood Mitigation scheme from the Government's Flood and Coastal Erosion Risk Management Grant in Aid and Local Levy funding.



Derbyshire County Council, Pinxton Parish Council, the Environment Agency, Severn Trent Water, Bolsover District Council, local councillors and the local community worked together to provide contributions for the scheme.

Securing such a variety of partnership funding sources boosted the schemes score helping to improve the cost/benefit ratio for receiving national funding. This meant that in 2012 the scheme was granted the required funding to enable the project to go ahead.

By November 2013 all affected properties had been provided with Property Level Protection products.

National six year investment programme

At the time of writing this strategy the government introduced a new six year capital programme of investment (2015/16 to 2020/21), included in the Autumn Statement announcement in December 2014. In the 2014/15 financial year the FRM team submitted a number of schemes to this six year programme. The six year programme is envisaged to retain a degree of flexibility and there may be opportunities for DCC to submit bids annually.

DCC have committed an element of partnership funding to the schemes currently in the six year programme for Derbyshire. However the future availability of additional funding from the County Council is uncertain due to the current cuts in local government support grant. Where available, any money for future studies/schemes will be released using a prioritised approach (please refer to Section 20) to ensure the greatest cost benefit is achieved with the limited monies available. DCC's current **Six year programme of investment**²¹ can be viewed in the national context online.

Please refer to the **Chesterfield Integrated Model** and **Pinxton Guidance Notes** for more information about two schemes that DCC have requested funding for.

Our investment plan

Moving forward DCC will continue to do the following to seek as much funding for the people of Derbyshire as possible. The FRM team will:

- Identify new projects and develop a project plan which extends well into the future;
- Identify all sources of partnership funding available; and
- Present all viable bids to the RFCC's.

DCC will continue to work with other RMAs to identify studies/schemes that have multiple benefits. This will ensure that DCC can continue to develop integrated schemes that take into account a range of sources of flood risk and can deliver a range of benefits.

Rather than implementing large and expensive flood defence or relief schemes, future management of local flood risk by DCC is likely to focus on smaller-scale prevention and resilience measures, such as:

- Community engagement to increase understanding and awareness;
- Developing a risk management approach for the function of all teams at the County Council and working with other organisations;
- Local actions by DCC and local communities, land sacrifice schemes and small-scale water management schemes;
- Measures to improve personal resilience to events (Flood Warden Schemes);
- Improved maintenance; and
- The implementation of Sustainable Drainage Systems (SuDS).

21. <https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes>

17. PLANNING AND FLOOD RISK MANAGEMENT

The purpose of the planning system is to help achieve sustainable development ensuring that new development delivers economic, social and environmental benefits. Currently the planning process is largely driven by the National Planning Policy Framework (NPPF) and Planning Practice Guidance. More locally, all Local Planning Authorities (LPAs) in Derbyshire should have approved Local Plans that establish the criteria against which planning applications are assessed in each District/Borough area. These are available from the relevant LPA for each District/Borough.

This strategy forms an important framework for managing and addressing future flood risk. Under the FWMA District/Borough Authorities have a duty to act consistently with the local and national strategies in respect of exercising their flood risk management function. Consequently there will be a greater need for the LLFA and the LPAs to work together so that strategic policies in Local Plans align with those identified within this strategy and that any policies are taken into account when determining any future planning applications.

Population growth within the County brings a requirement for the supply of new housing and business premises. With sites of low flood risk in short supply, the fear is that this will drive development towards areas of increased fluvial, pluvial and groundwater flood risk. The role of all RMAs in the planning process is to ensure the increased risks of flooding from all sources to and from new developments is negated and housing supply is provided sustainably.

DID YOU KNOW?

DCC's FRM team are not currently a statutory consultee to the planning process on flood risk.

Role of the local planning authority

The LPAs assess all planning applications taking into account a wide range of material considerations, including flood risk. When assessing a planning application the LPA must liaise with a number of 'statutory consultees' as set out in planning law. The role of the LPA in flood risk management is essential for:

- Directing development away from areas of highest risk of flooding towards areas that will lessen the impact on existing development;
- Mitigation of the surface water run-off impacts of new development on downstream areas;
- Promoting SuDS in all new developments to ensure that the multi-benefits of SuDS (flood risk, water quality, environment and amenity) are explored to their fullest; and
- Mitigation of adverse impacts of new development on water quality. Planning policies tend to focus on the impacts of development on the quantity and rate of run-off. However, given the requirements of the Water Framework Directive (WFD), the mitigation of water quality also needs to be considered.

Statutory consultees to the planning process

DCC's FRM team are not currently a statutory consultee for flood risk for the planning process. The EA are currently the statutory consultee for flood risk. However, since early 2013 DCC have been working with all LPAs (on a non-statutory basis) to provide guidance on applications to ensure that any local flooding issues are considered during the planning stage.

DCC were consulted on 127 planning applications in relation to flood risk in 2013, with this number expected to reach up to 300 in 2014. This reflects the increasing focus by DCC and Derbyshire's nine LPAs on flood risk management in the planning process. DCC currently make comment on the majority of applications consulted upon. However, resource demands will often require DCC to prioritise service towards those applications that are defined as 'locally important' in flood risk terms. The criteria set for prioritisation is outlined in Section 20.

POSITION STATEMENT AUTUMN/WINTER 2014/2015:

Defra released consultation on 12th September 2014 which outlined an alternative way of delivering SuDS through amendments to existing planning guidance. Depending on the outcome of this consultation, LPAs may have the duty to approve SuDS systems for new developments, with assistance from a range of consultees. This alternative solution may come into force in April 2015.

SuDS national standards

Regardless of the national stance on SuDS implementation, it is likely that all major planning applications will need to meet new National Standards for sustainable drainage. This follows legislative changes to the planning process likely to be implemented as a result of the September 2014 Defra consultation. The SuDS National Standards will cover aspects of drainage development in relation to:

- Runoff destinations
- Flood risk outside the development
- Flood risk within the development
- Peak development discharge rate and volume control
- Water quality
- Structural integrity
- Future SuDS maintenance
- Construction and operation

DCC strongly promote SuDS in all interaction with the planning process and have adopted a policy to advise in all planning consultation responses that developments should be designed to adhere to the draft National SuDS Standards.

The cumulative impacts of development on river catchments have historically been an important contributing factor to flooding. The increasing link between DCC's FRM team and the District/Borough LPAs represents a concentrated effort towards more sustainable development that minimises flood risk to existing development and infrastructure and where possible provides additional benefits to Derbyshire residents and the wider environment.

If you have concerns over any proposed or recently constructed development, you are advised to liaise with the relevant Planning Development/Enforcement team at your District/Borough Council. Contact details of which can be found in Part 1, Section 8 of the strategy or on their respective website.

POSITION STATEMENT AUTUMN/WINTER 2014/2015:

The SuDS National Standards are yet to be finalised at the time of writing this strategy, however draft National Standards have been released.

18. ACHIEVING WIDER ENVIRONMENTAL OBJECTIVES

To ensure that this strategy contributes to the achievement of wider environmental objectives it is important that it meets the requirements of the Strategic Environmental Assessment (SEA) directive and the Water Framework Directive (WFD).

A SEA has been produced in conjunction with the strategy and is presented in **Appendix 2**. The SEA is an important tool to help understand the environment in Derbyshire and help to steer any decisions towards those that minimise adverse environmental effects and realise environmental benefits.

The implementation of any flood risk management options and measures in Derbyshire presents the opportunity to improve the natural environment. The FWMA states that the strategy should specify how it will contribute towards the achievement of wider environmental objectives consistent with the principles of sustainable development.

DCC, like all RMAs, have a responsibility to support the EA to help achieve objectives under the WFD. The aim of the WFD is to protect the ecological quality of all inland and coastal waters. Any changes that could occur due to flood and coastal erosion risk management activities must take account of the legal obligations to prevent deterioration of the status of water bodies and where possible should seek to improve the status. For this reason, the FRM team take seriously the environmental implications of all of its operations, including actively promoting good environmental practice in consenting in ordinary watercourses and in consultation with LPAs in the planning process. The main reasons for why a waterbody is achieving or not achieving the required 'good ecological status' are set out in the **River Basin Management Plans**²² (RBMPs). Individual environmental assessments as part of any work should consider RBMPs and should seek to identify ways to deliver measures within the RBMPs on an opportunistic basis. The Action Plan details how the FRM team will work to achieve environmental benefits in all the teams function.

The FRM team have produced **Environmental Best Practice Guidance Notes** which promote sustainable working practice and provides guidance for incorporating environmental benefits for flood risk management.

Sustainable flood risk management

LPAs already have experience in planning for sustainable development via the creation of their Local Plans (please refer to Section 17). The FWMA specifies that all RMAs must aim to make a contribution towards the achievement of sustainable development in their risk management function. In order to guide all RMAs as to how to do this Defra have produced **guidance for risk management authorities in sustainable development in relation to their flood and coastal erosion risk management functions**²³

22. RBMPs are available to view at <https://www.gov.uk/government/collections/river-basin-management-plans> or by contacting the Environment Agency. The majority of Derbyshire is within the Humber RBMP area, with the north west of the county within the North West RBMP.

23. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69447/pb13640-sdg-guidance.pdf

Sustainable Development = development that meets the current needs without compromising the ability of future generations to meet their own needs.

Sustainable development for flood risk management can be achieved by considering a range of alternative ways to reduce risk. All flood risk management activities in Derbyshire should:

- Not increase the flood risk for communities now and in the future;
- Take into account the environment, identify opportunities to enhance it and not compromise it for future generations; and
- Increase resilience of the communities of Derbyshire to the current and future flood risks.

These guiding principles apply to all flood risk management activities by DCC and its partner RMAs and includes, but is not limited to, new development, flood risk alleviation projects and ordinary watercourse consenting. Likewise, DCC will encourage residents, landowners, businesses and partner RMAs to take a similar approach to sustainable flood risk management where possible.

19. A CATCHMENT APPROACH

Often, it is not effective to manage the sources and mechanisms of flooding at the local level. DCC have worked towards a number of schemes which aim to achieve wider flooding and environmental benefits through wider catchment land management, for example a collaborative pilot project to enhance the River Ecclesbourne catchment and the wider River Derwent Land Management group.

The **Forestry Commission**²⁴ are currently researching the use of floodplain woodland as a soft-engineered aid to flood risk management. It is accepted that re-foresting catchment uplands and floodplains can delay and reduce surface water runoff. However, forest planting also offers wider benefits for water quality and gains in habitat, conservation and leisure.

24. Forest Research information on flood risk alleviation: <http://www.forestry.gov.uk>

A number of external organisations in Derbyshire are currently working on large schemes that aim to restore or create new forested areas.

Other land management practices that can reap strong benefits to local and catchment flood risk are meadow restoration, moorland restoration and the introduction of woody debris dams. DCC are aware that other partner organisations are actively promoting these practices in Derbyshire.

There is strong evidence that catchment land management improvements can deliver cumulative flood risk benefits. DCC will continue to support projects and partnerships that aim to promote catchment restoration, and this forms a key part of Local Objective 6 in the strategy.



Figure 13: Woodland replanting in the Upper Derwent Catchment (picture courtesy of 'Moors for the Future')

For further information please refer to the [Rural Land Management Guidance Notes](#).

20. DCC'S LEVEL OF SERVICE FOR LOCAL FLOOD RISK MANAGEMENT

Level of service during a flood event

In addition to the Council's role as the LLFA under the FWMA, the Authority also has duties under the Civil Contingencies Act (2004 – see [Relevant Legislation, Strategies and Plans Guidance Notes](#)). Emergency planning and incident management are vital to reducing the consequences of flooding for the people of Derbyshire.

'Flood Emergencies' from both local flood sources and Main Rivers are rated as Very High or High risk across Derbyshire. As such the County Council's Emergency Planning Team have developed a detailed 'Multi Agency Flood Contingency Plan' in line with Defra guidelines and approved by the Local Resilience Forum (please refer to Figure 12). Derbyshire's "Community Risk Register 2015: What you need to know and how you can prepare for emergencies" and the Derbyshire Flood Contingency Plan can be viewed on the **DCC's Local Resilience Forum website**²⁵.

25. www.derbyshireprepared.org.uk

Derbyshire Prepared

As a flooding emergency becomes more serious, the Flood Contingency Plan can be implemented and all responding agencies (including the emergency services) will operate from the Council's Emergency Centre at County Hall, Matlock. The County Council will endeavour to redeploy staffing resources to respond to the flooding emergency. The FRM team will provide advice and information on critical flood assets and the Emergency Planning team will co-ordinate efforts between other responding organisations and the emergency services. With limited resources it will be necessary to carefully prioritise our response to calls for assistance. A policy is currently under development which will identify the following priorities:

- Danger to life;
- Vulnerable residents, not reasonably being able to take their own protective measures;
- Multiple properties being affected in a locality as opposed to a single property;
- Involvement of a critical asset where reactive maintenance or clearance will alleviate the problem; and
- Where a critical utility is at risk which may affect a whole area or community.

Currently during an emergency event the FRM team do not provide a reactive service. The FRM team can however provide support and guidance during and after a flood event which is explained further in Part 1 of the strategy.



Level of service after a flood event

Customer Response Prioritisation

Given the variety and complexity of the service related requirements placed by the County Council we must prioritise DCC's resources to deliver the most efficient service for the people of Derbyshire. It would be unrealistic for the Authority to attempt to assist everyone across the County all at once.

Table 4 illustrates the prioritisation methodology currently utilised by the FRM team for undertaking flooding investigations after a reported flood event.

Another aspect which has a bearing on prioritisation is related to the statutory duties placed on DCC under the FWMA and the LDA as highlighted in **Relevant Legislation, Strategies and Plans Guidance Notes**.

Priority Level	Reported attributes of Flooding Incident
High	A report of flooding which identifies a risk to life, critical infrastructure or a minimum of five* internal properties flooded (residential dwelling or commercial)
Medium	At risk of multiple sources of flooding Internal flooding (surface water, fluvial (rivers), Highway or public sewer)
Low	At a low risk of flooding Flooding from groundwater sources External/garden flooding

*Although we have identified five internal properties as a locally significant number this does not mean that we feel that one property for which has internally flooded is acceptable or not important on a personal level. By setting a threshold, a consistent level of service can be delivered across Derbyshire. All enquiries reported to the FRM team will be attended to and all appropriate advice and support will be provided to all customers for who report an enquiry to the FRM team.

Table 4: Prioritisation of flooding investigations currently utilised by the FRM team

Identified below is an overview of the FRM teams approach to undertaking suitable investigations following a reported flood event.

Formal Flood Investigations

One of DCC's key duties under the FWMA is to investigate flood events that occur within its area, as it deems necessary.

Section 19 of the FWMA states:

On becoming aware of a flood in its area, a DCC must, to the extent that it considers it necessary or appropriate, identify:

- which Risk Management Authorities have relevant flood risk management functions; and
- whether each of those Risk Management Authorities has exercised, or is proposing to exercise, those functions in response to a flood event.

In some circumstances a reported flood enquiry in Derbyshire triggers a 'formal investigation'. The trigger for a formal investigation is when the enquiry meets or exceeds locally agreed criteria set by DCC's Strategic Flood Board which includes:

- An event where five or more residential properties, or two or more non-residential (industrial/commercial) have been internally flooded;
- An event where a flooding problem is recurring and is supported by records or anecdotal evidence as having occurred more than once in a ten year return period for any given location;
- An event where threat to life and/or threat of injury or harm has occurred;
- An event which affects an area or community with a concentration or high proportion of vulnerable people;
- An event which impacts on critical infrastructure (water, sewage treatment, electricity/gas distribution, telecommunications and the strategic transport network) in excess of twelve hours before restoration of service; and
- An event which impacts on essential services (emergency services, NHS, Local or Central Government services) in excess of twelve hours before restoration of service.

For more information regarding a formal flood investigation please refer to the **[Flood Reporting and Enquiry Investigation Guidance Notes](#)**.

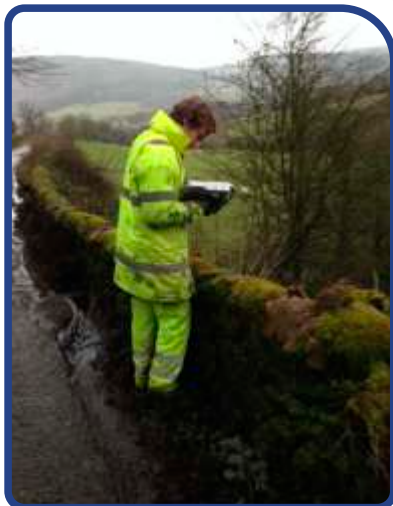
Other Flooding Enquiries

The FRM team log all reported incidents of flooding to the team on to the County Council's approved computer system. The team will provide a response to a customer for every reported enquiry as quickly as feasibly possible. The time taken to provide a response will however be dependent on the level of demand the team are experiencing at the time the incident is reported. The level and type of response provided will be determined by the source of the flooding and or the risk. All responses are currently prioritised utilising the prioritisation matrix in Table 4.

Where the source and mechanism of flooding is not known then the FRM team will look to investigate further; in some cases requiring detailed technical reports or studies. The findings from these technical documents will be utilised to assist with identifying the most at risk communities in Derbyshire ensuring that we manage and direct our limited resources to support the communities that need DCC the most. In some circumstances this technical information will be used to develop detailed design options for which could provide feasible flood mitigation projects for an area. Where a flood mitigation option is identified as being feasible then these technical reports will be used to support any bids for funding sources (please refer to Section 16).



FRM team investigating a flood enquiry



FRM team member logging information on site

The team aim to provide a response to a flooding enquiry within 10 working days. During a busy period (during or after a flood event and depending on the criteria of a flood report) it may be weeks before the team are able to provide an informed level of response. If your enquiry relates to groundwater flooding or garden flooding then the response time may be slower due to other enquiries being prioritised. This does not mean that any reported incidents are not important to us it just means that due to limited resources the team focus has to be prioritised towards the local community members who are most at risk.

Where an incident has been reported which relates to a Main River or a Public Sewer the FRM team will liaise with the relevant Environment Agency or Water Company contact to ensure the enquiry is passed to the correct authority.

For further guidance on how to report flooding incidents please refer to the **Flood Reporting and Enquiries Investigation Guidance Notes**. For information relating to the Highways team please refer to the **Highway Statutory Duties and Vested Powers Guidance Notes**.

How do we intend to develop the way in which we prioritise our resources?

PRIORITISATION = "ARRANGE ACCORDING TO PRIORITY"

To enable us to better understand flood risk (refer to Figure 14) within Derbyshire we will need to undertake further analysis of the sources, mechanisms, extents and areas within Derbyshire which are currently at risk from local sources of flooding. In addition to understanding the current and predicted flood risk posed to the people of Derbyshire we will utilise predictive hydraulic modelling information to engage with communities whom may be at risk of flooding from local sources.

The FRM team intend to utilise a methodology for prioritisation which has recently been developed by the Environment Agency's Midlands Office. This approach does not look in isolation at fluvial and surface water sources but analyses the risk which both pose to a community. This will not detract from our role to lead on local sources but will cement a collaborative approach with the Environment Agency. This information will also allow DCC and all other RMA's/stakeholders to work collaboratively and focus limited resource and finances to support locally significant projects.

This analysis will be a critical tool in enabling us to build a strategic picture, over time, of the most beneficial flood risk management projects within the highest risk areas. As well as identifying possible schemes where appropriate and feasible this data set will enable us to develop our communication strategy for informing/supporting communities for where local resilience may be the most appropriate solution for that community. This project has been Action Plan in **Appendix 1**). Further information will be produced at a later stage identified within the Action Plan as a high priority with a short timescale (refer to the once the countywide analysis has been undertaken. For further information regarding our current communication strategy please refer to the **Communication Strategy Guidance Notes**.

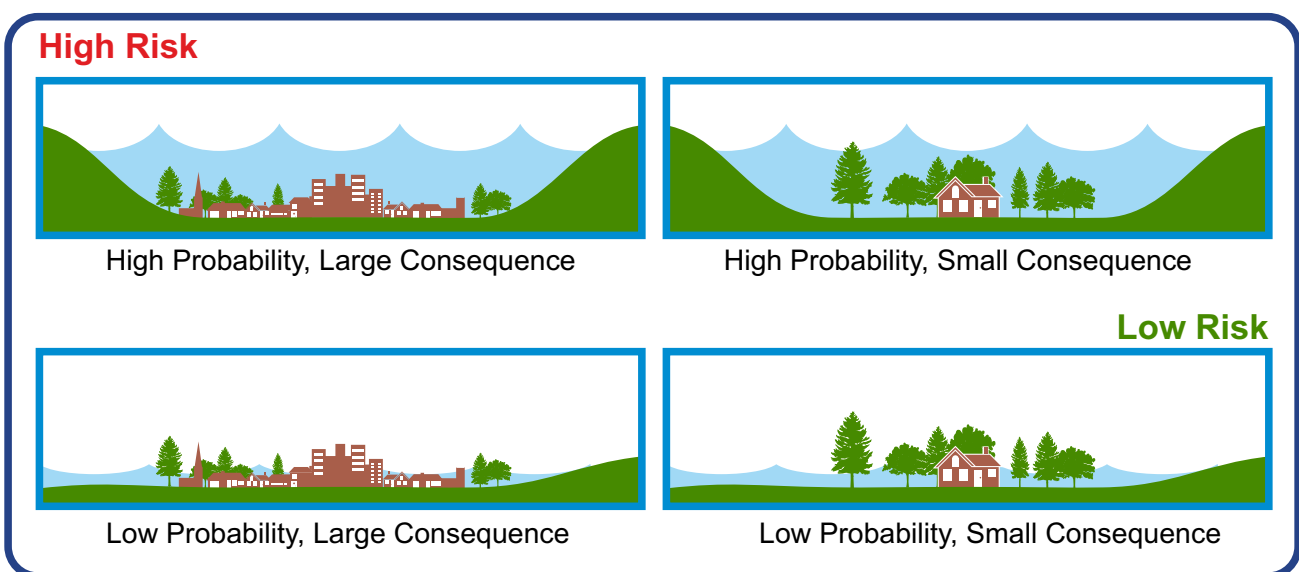


Figure 14: Illustration of the various types of flood risk

Level of service for other flood risk management service related activities

Land Drainage Consents

DCC are the lead consenting authority for all applications for works within or near to ordinary watercourses across Derbyshire under the LDA. Any structure or obstruction to flow of an ordinary watercourse may require temporary or permanent consent and will require legal consent (requiring a statutory fee of £50 per structure or obstruction). The FRM team have a statutory eight week period in which to reach a decision to accept or reject any proposals from receipt of all correct documentation required for the application. The team try to process all applications as swiftly as possible however the time taken depends on the resource constraints of the team and also in some cases the level of pre-application discussion.

All applicants are encouraged to liaise with the team prior to submitting an application to reduce the need for a delay in beginning the assessment of the application process.

Enforcement action (not necessarily criminal sanction) may be taken where damaging or potentially damaging works have been undertaken without consent or are in contravention to consented works under Section 23 of the LDA. For further information please refer to the [Enforcement Powers Guidance Notes](#).

Planning Application Responses

The County Council are not currently a statutory consultee to the planning process. The FRM team recognise the importance that planning decisions can have on flood risk and since 2012 have provided comment to as many planning applications as feasibly possible. As this is not a statutory duty for DCC we must balance the resource commitments of delivering this service area against service pressures for which we are duty bound to provide. However, there is a strong drive to where possible provide support to all LPAs within Derbyshire, as when requested to do so.

Moving forward the Environment Agency (as a statutory consultee to the planning service) are prioritising their responses and using a risk based priority to respond to planning. With these changes within the Environment Agency they are looking to work collaboratively with LLFA's with an aspiration that the LLFA's take a more active role in providing comments in relation to local sources of flooding. Therefore the Environment Agency will continue to focus their responses areas they deem to be at significant risk of flooding with the focus on Main River fluvial flood zones. This new approach therefore highlights the need for the FRM team to comment on developments where the Environment Agency may not perceive there to be a risk from Main Rivers but where local flood risk concerns are high.

Applications which fall within any of or a combination of the following criteria will be prioritised for comment from the team:

- The developable site area is equal to or greater than one hectare in size;
- Are there any local watercourses which run through the site (hidden or open);
- Does part of the proposed site fall within the outlines of the 1 in 100 year surface water flooding outline for the critical duration storm event. (DCC Surface Water Mapping Data);
- Does the site fall within a zone where the groundwater is predicted to less than 3m below the ground surface for at least part of the year;
- Are there any assets that fall on the asset register within close proximity to the site;
- Are there any historical records of flooding of significance in close proximity upstream or downstream of the site.

Upon completion of identifying Derbyshire's priority flood risk areas (a key action from the local objectives) the outputs from that process will help further develop the team's role in informing development within Derbyshire.

Environmental Information Request (EIR) and Freedom of Information Requests (FOI)

The County Council have 20 working days in which to respond to a request for information under the Environmental Information Regulations (2004) and the Freedom of Information Act (2000). The team aim to process any request for information within 10 working days of receipt of the request. However this is dependent on the level of resource availability of the team at the time the request is received. Please refer the DCC website for further details and the [Data Held, Sources and Requests Guidance Notes](#).

21. ADDRESSING THE SKILLS AND RESOURCE GAP

In order to fulfil the new duties placed on DCC as the LLFA the FRM team has been established. In July 2010 Defra produced a **Capacity and Building Strategy**²⁶ which identified key knowledge required to be strengthened. The FRM team will need to increase their flood risk management capacity and skills in order to successfully deliver all responsibilities. Derbyshire's Action Plan indicates that key training to strengthen internal knowledge is required. Moving forward the team will continue to work closely with partner organisations to source additional resources and skills.

Availability of future resources is a key issue particularly responding to planning applications. Increased volumes of planning applications and related work will need to be carefully assessed (as DCC are not currently a statutory part of the planning process). 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.

To enable the FRM team to achieve the actions contained within the Action Plan, a resource plan will be produced which will outline the resource implications of the FWMA and will emphasise the need to retain existing staff and skills where possible.

As the team develops a better understanding of the flood risks across Derbyshire the strategy (as a living document) will be amended accordingly (a requirement of the national strategy).

26. <http://archive.defra.gov.uk/environment/flooding/documents/manage/surfacewater/capacitybuilding.pdf>

GLOSSARY OF TERMS AND ABBREVIATIONS

TERM	DEFINITION
BGS	British Geological Survey
Critical asset	A structure or feature that is considered to have a significant effect on a flood risk in its area
DALC	Derbyshire Association of Local Councils
DCC	Derbyshire County Council
DEFRA	Department For Environment, Food And Rural Affairs
EA	Environment Agency
EIR	Environmental Information Request
EU	European Union
FCERM GIA	Flood and Coastal Erosion Risk Management Grant In Aid
Flood Warden Scheme	An initiative to provide a community with equipment, skills and training to enable them to be more resilient to flooding
FOI	Freedom of Information
FRM	Flood Risk Management
FWMA	Flood and Water Management Act
LDA	Land Drainage Act
LFRMS	Local Flood Risk Management Strategy
LLFA	Lead Local Flood Authority
Local sources of flooding	Flooding from surface water, groundwater and ordinary watercourses
LPA	Local Planning Authorities (District/Borough Councils)
NPPF	National Planning Policy Framework
PFRA	Preliminary Flood Risk Assessment
RBD	River Basin District
RBMP	River Basin Management Plan
Resilience	Capability to anticipate risk, limit impact and recover quickly
RFCC	Regional Flood and Coastal Committee
RMA	Risk Management Authority
SEA	Strategic Environmental Assessment
SuDS	Sustainable Drainage Systems
WFD	Water Framework Directive

FLOODING - WHO TO CALL?

In the event of an emergency, particularly if there is a danger to life, you should always call the Police, ambulance or fire brigade. The County Council also provides an Emergency Planning Service that can assist during an emergency flood event. The Emergency Planning team can be contacted on **(01629) 538364** or **emergency.planning@derbyshire.gov.uk**. Out of normal working hours contact can be made through Call Derbyshire on **(01629) 533190**. Please be aware that the FRM team does not provide a reactive service whilst flooding is ongoing, but will be advising emergency responders.

	Query	RMA	Contact Details
  	Surface water, groundwater, ordinary watercourse flooding	Derbyshire County Council	flood.team@derbyshire.gov.uk 01629 538563
	Highway water (non-trunk roads)	Derbyshire County Council	etenetmanadmin@derbyshire.gov.uk 01629 533190
 	Main River, reservoir and coastal flooding	Environment Agency	enquiries@environment-agency.gov.uk 03708 506 506
	Sewer Flooding	Severn Trent Water Yorkshire Water United Utilities	STW - 0800 783 4444 YW - 0345 124 24 24 UU - 0345 672 3723
	Highway Water (trunk roads)	Highways Agency	ha_info@highways.gsi.gov.uk 0300 123 5000