Bolton's Flood Risk Management Strategy

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Public Summary

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Introduction

"*Over 5.5 million properties in England and Wales are at risk of flooding from rivers, the sea or surface water. That's one in six which means there's a high chance one of these properties is your home or business*" - National Flood Forum

A series of devastating floods have affected many parts of the UK over the last few years, bringing with it immense social, economic and environmental damage. This has led to a change in government policy in respect of dealing with flooding. Bolton Council is now responsible for managing the risk of flooding from surface water and for producing a local strategy setting how we are going to do this.

Bolton's Flood Risk Management Strategy explains:

- How partners are working together to reduce flood risk.
- Gives an overview of how we intend to manage flood risk.
- Sets out which organisations are responsible for different types of flooding.

Why now?

The Flood and Water Management Act 2010 followed a government review that examined the major flooding that occurred in the summer of 2007. This review identified the failings that occurred and improvements that could be made to limit or reduce the impact of flooding on communities.

The Act gives Bolton Council a lead role in managing flood risk, bringing together the multiple bodies that currently have some responsibility in managing flood risk, such as; United Utilities, The Environment Agency, and land owners.

By working in partnership with organisations and with local communities, we can make in-roads into reducing the impact of flooding on communities. The local flood risk management strategy will guide us on this path.

What is meant by flooding ?

The strategy's primary focus is on surface water flooding, this is flash flooding that occurs during heavy downpours of rain. It also includes groundwater flooding and flooding from small streams and ditches when they overflow due to rain. Other bodies are also involved; the Environment Agency manage the risk of flooding from the larger rivers and reservoirs, and United Utilities look after flooding from the sewer network. We work closely with these partners so still have to be aware of where all types of flooding occur.

The cause of flooding in urban areas is often complex with the source of flood water coming from multiple sources at the same time, such as highway run-off and sewer overflow. Until recently no one organisation had direct responsibility for overseeing how these problems are managed. Bolton Council is now taking on the lead for managing surface water flood risk, and will work with various partners to resolve or manage this risk.

Local Flood Risk Partners and their Risk Management Functions

Understanding the risk of flooding

Flooding is a natural phenomenon, but this can be made worse by poor management of the landscape and the environment, such as inadequate maintenance of watercourses. The problems of flooding can be made worse if we fail to properly tackle this risk.

Flooding from rivers is better understood and the Environment Agency (EA) can make predictions and give advanced warning of when river flooding may occur. The EA have produced maps showing areas that may be affected by river flooding, residents can find out if they live in such an area by visiting the EA website.

www.environment-agency.gov.uk

With other types of flooding it is not easy to predict where and when flooding will occur or how severe it is going to be. This is particularly true with surface water flooding, but what we can do using the latest computer modelling, is identify where the flood risk is likely to be greatest.

Predicted climate change may greatly influence the frequency and severity of flooding events. It is likely that in future extreme rainfall events will be more common and more severe leading to increased damages from flooding. We need to start taking measures now to counter this long-term threat.

The government has identified the following issues as key threats as a result of climate change:

1. Increase in Expected Annual Damage to residential property due to flooding.
2. Ability to obtain flood insurance for residential property.
3. Effects of floods/storms on mental health.
4. Insurance industry exposure to UK flood risks.
5. Increased number of residential properties at significant risk of flooding.

Annual damage to UK properties due to flooding from rivers and the sea currently totals around £1.3 billion. For England and Wales alone, the figure is projected to potentially rise to £12 billion by the 2080s, based on future population growth and if no adaptive action is taken.

The average domestic insurance pay-out range for flood damages can have a significant impact on the financial standing of a household when possessions are lost in a flood, but not replaced.

The average business insurance pay-out for flood damages is also significant. There is evidence many smaller businesses fail after a flood or move elsewhere. This can have an effect on the economic stability of an area.

Estimates of the Flood Risk in Bolton

Flood Source	Rainfall Event	Residential Properties at risk	Non-Residential Properties at Risk
Surface Water Greater than 300 mm in depth.	1 in 30 year annual risk (3.3 % chance per year)	702	358
	1 in 200 year annual risk (0.5 % chance per year)	1946	780
	1 in 200 year annual risk including an allowance for the effects of climate change	2563	970
Sewer	1 in 30 annual risk (3.3 % chance per year)	184	310
River	1 in 100 year risk (1% chance per year)	1013	222
	1 in 1000 year risk (0.1% chance per year)	2407	502

What we can do ?

The old ways of managing surface water by constructing pipe systems that discharge to watercourses are no longer sustainable. The FWMA has the potential to introduce in the future, the requirement when building new developments to manage surface water differently and be more sustainable through the application of solutions such as on-site storage and infiltration back into the ground. This type of drainage is referred to as Sustainable Drainage Systems (SuDS).

Examples of SuDS are:

- Permeable surfaces,
- Swales, (these are wide ditches that slow run-off and allow infiltration into the ground)
- Filter Strips,
- Flood Storage Basins,
- Ponds,
- and Wetlands.

Maintenance of the environment is important to ensure that flood risk is reduced, any blockages of culverts or ditches can result in flooding even in moderate rainfall. By making sure key assets are regularly inspected and monitored, and that maintenance is undertaken, we will reduce the risk of blockage or collapse.

Bolton Council will be creating an asset register that identifies manmade and natural features that perform a flood defence function. The ones that are deemed most important will be designated by us to protect them from being altered or removed. The register will make sure owners are identified and that they are aware of their duties.

We will investigate floods, where they are not already being investigated by either United Utilities or the Environment Agency, to determine how the flood happened and what can be done to reduce the risk of it happening again.

Anyone who proposes making changes to watercourses will need to obtain our consent. This way we will control the watercourse network and protect communities that rely on their operation.

Through application of our planning policies we currently limit the maximum flow of surface water discharges from new development, so as to reduce flood risk elsewhere.

What can you do?

A flood can happen at any time and in any place. You may be at home, at work, or even on holiday. Find out how to prepare for a flood emergency wherever you happen to be and things you can do to help prevent the flood greatly impacting your life.

Be aware of the flood risk where you live and work. You can learn about which areas are at risk, how you can prepare and what you should do when it happens at the Environment Agency website.

http://www.environment-agency.gov.uk

A watercourse is a small river, stream or ditch, generally they have water flowing along them, but not always. They are important for conveying water during heavy rainfall. Land or home owners whose land includes or adjoins a watercourse are known as “riparian owners”. They need to make sure that the flow of water is not obstructed. Even if the watercourse is in a pipe underground, they are still responsible for the pipe and keeping the water flowing.

Good maintenance is often ensuring that grilles are cleared of debris or removing dumped rubbish from ditches. Doing these simple tasks can make a big difference to how drainage systems operate and influence whether flooding occurs. We will work with riparian owners to ensure systems they own are adequately maintained.

Some privately owned drainage systems or other features that protect against flooding, such as walls, may be legally designated by us if they pose a sufficient flood risk should they fail in service. This means the owner cannot alter, remove or replace the feature without our consent.

What we will do

The local flood risk management strategy is not just about delivering flood protection schemes. It includes making sure we have the right evidence to make informed decisions, that assets are well managed, our community is aware of the risk and informed on how to respond in an emergency. We plan to undertake the following in the coming years.

Asset Management Strategy - develop a long-term drainage asset management strategy, which covers highway and ordinary watercourse maintenance. As a result we will improve maintenance regimes in areas of high risk.

New Development – work together with the Environment Agency to ensure that any new development is appropriate for an area and flood resilient. Ensure development and infrastructure takes account of, and is resilient to, the effects of Climate Change.

Collaboration – work together with other local authorities, the Environment Agency and United Utilities to develop and implement local and regional flood risk management strategies including the Greater Manchester Surface Water Management Plan.

Sustainable Drainage Systems – when Schedule 3 of the FWMA is commenced, ensure that drainage on new developments is built to the national standards for sustainable drainage systems, and explore opportunities to create green and blue spaces. Opportunities for retrofitting of sustainable drainage systems in high risk areas will be examined.

Resilience – working with the Greater Manchester Civil Contingencies and Resilience Unit, promote flood resilience and resistance measures to 'at risk' households and businesses. Ensure that we are well prepared and that we have the necessary local and regional plans in place and that these are up to date.

Funding - use our national flood risk management funding to manage the assets, and explore additional funding sources to support project bids.

Communication - inform residents on flood risk, produce plans showing where flooding may occur and where it will be most hazardous. Continue to explain what work is underway to reduce flood risk, how this is prioritised and what role residents and businesses can play.

Technology - continue to promote and use innovative mobile working technologies, to provide an improved customer service and improved data collection. We shall utilise the latest computer modelling to better define areas of flood risk.

The size of assets in Bolton

Asset Type	Quantity	Asset Type	Quantity
Length of ordinary watercourses	322 km	Length of culverted watercourse	104 km
Length of main river	101 km	Length of culverted main river	19 km
Number of debris screens maintained by Bolton Council	109	Number of highway gullys	57,000
Number of debris screens maintained by Environment Agency	26	Approximate length of highway drainage	175 km

Funding

The Authority receives money each year from central government specifically to manage flood risk, develop and implement this strategy. The strategy identifies actions that we can undertake to achieve our aims, the timeframe in which we undertake some of these actions will vary. Some will be done in the near future, others will take longer, and some will be dependent on how and when areas are re-developed.

Funding to do projects to reduce flood risk is available through a bid process managed by the Environment Agency. Eligible projects have to show that they protect households from damage and deliver other benefits such as environmental or business improvements. There is now an emphasis on protecting households in areas of high deprivation, as these communities are usually the ones that are impacted the greatest during floods.

Contacting Us

If you require more information or have any questions, please email us at floodrisk@bolton.gov.uk or by calling 01204 333333.

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