

Barnsley

Local Flood Risk Management Strategy

(Appendices)

Date	September 2017
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Version	FINAL DRAFT
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Revision Schedule

Local Flood Risk Management Strategy

Revision	Date Prepared	Details	Prepared by	Date Issued
01	September 2017	Draft Report (for Internal Distribution)	Wayne Atkins Principal Engineer - Drainage	

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Appendix A

1. Flood Risk In Barnsley

1.1. The Local Setting

Barnsley lies at the midpoint between the region's two main cities of Leeds to the north and Sheffield to the south. It covers an area of 320 square kilometres and is home to around 222,000 people.

Historically Barnsley was centred on coal mining resulting in the borough's dispersed pattern of small towns and villages. Because people lived where they worked and coal was moved by rail, road links between towns and villages were poor and communities were self-contained.

The borough has a varied geography. The west of the borough is predominantly rural in character with open moorland, arable farmland and natural woodland. It is characterised by attractive hilly countryside part of which lies in the Peak District National Park, and is centred on the rural market town of Penistone. In the centre of the borough is Barnsley itself and the surrounding urban area which is the main shopping, administrative, business and entertainment centre. To the east of the borough stretching from the M1 motorway to the Dearne Valley are the towns of the former Barnsley coalfield which form a dense settlement pattern and have a relatively high level of deprivation. The Multiple Deprivation Index highlights Barnsley as one of the most deprived areas in England. In 2007 it was ranked 41st out of 354 local authorities surveyed. The west is far more affluent than the east with conditions and income similar or equal to the national average, whereas in the east there is a consistent and acute pattern of deprivation.

The map below shows the extent of the BMBC are and the main rivers that drain the district.



Figure 1 - Barnsley MBC Administrative Area

Appendix A

1.2. Physical Characteristics

The Barnsley MBC area includes catchment areas of the River Dearne and the Upper Don. This is shown in Figure 1. The Dearne and Upper Don catchments have their own unique characteristics and flooding issues.

The River Dearne rises in Flockton Moor, Emley Moor and Denby Dale area. The Upper Don rises on Thurlstone Moors near the Snailsden, Winscar and Windleden reservoir complex.

The Upper Don and Dearne typically experience a fairly natural flood response. There are also a number of designated washlands on the Dearne.

The topography of the Barnsley MBC area, especially in and around built-up areas make them prone to flooding caused by heavy rain due to impermeable surfaces and the lack of capacity within the sewers. Modelling carried out for Barnsley's Strategic Flood Risk Assessment (SFRA) show that there are areas where surface ponding may generate flood depths over 0.5m (which could be made worse by flooding from local watercourses) are distributed across the Barnsley MBC urban areas.

Both the Surface Water (pluvial) and Main River (fluvial) flood risk maps are available for the public to view on the Environment Agency's website.

1.3 Understanding Flood Risk

In order to manage flood risk, it is important that we understand the types of flood risk. These are as follows:

River and Stream/Dyke Flooding

This occurs when a river, stream or dyke cannot cope with the amount of water draining into it from the surrounding land, which may lead to the overtopping of the river causing flooding to adjacent land and properties. This is sometimes referred to as "Fluvial" flooding

Surface Water Flooding

This occurs when rainwater does not drain away through the normal drainage systems (sewers, highway gullies etc.) or soaks into the ground, but lies on top or flows on the surface instead. This is sometimes referred to as "Pluvial" flooding.

Sewer Flooding

This happens when sewers cannot cope with the amount of water flowing through them during a storm. The sewers become overwhelmed and excess flows spill out onto adjacent land and property.

Groundwater

Groundwater flooding is usually very local and governed by the local geology. It usually occurs after periods of prolonged or heavy rainfall.

Groundwater flooding can arise from:

- Natural exceptional rises in groundwater level, reactivating springs and short lived watercourses (often referred to as 'Clearwater flooding').
- Rising of groundwater (known as rebound) following reductions in historic abstraction.
- Mine water recovering to natural levels following cessation of pumping.
- Local shallow drainage/flooding problems unrelated to deep groundwater responses.

Appendix A

1.4. History of Flooding Issues In Barnsley – Past And Potential

The following Table 1 summarises information from the records regarding flooding in Barnsley.

Table 1 Summary of Flood Records for Barnsley

Flooding Event and Description	Source of Flooding
July 2012: Significant periods of rain affected the wider region from April – November. The most intense storms affecting the Barnsley area during July and resulted in a handful of properties being inundated	Surface Water Main River Ground water
January 2008: A period of intense rain fall resulted in a small number of properties within the Darton area of the borough being affected by internal flooding of basements within their properties	Surface Water
June 2007: Intense rainfall for a prolonged period culminated in severe flooding on 15 th June throughout the whole of the borough. The continuation of the intense rainfall lead to repeat a 2 nd and more significant flooding event on 25 th June	Surface Water Main River Ground water
Spring 1970: Anecdotal reports confirm that properties flooded in the Darton area	Main River
Flooding during 1950's 1960's: Anecdotal evidence that properties flooded in the upper Don catchment	Main River

Historically there had been a few small scale flooding events within the borough, usually these affected the Darton village which is known to be the first community to be affected by high river levels in the Dearne and acts as an informal 'barometer' for flooding across the borough.

Widespread areas of the north of England were affected by significant rainfall events in 2012 from April through to November, causing a great deal of flooding in many parts of Yorkshire. The impact on communities within the Barnsley area was relatively minor although some property-level inundation did occur during July 2012 when the worst effects of these storms were experienced.

A handful of properties were affected during this period, this can be directly attributed to the programme of repair works undertaken by the authority along with other risk management authorities in the intervening years since the 2007 floods.

Barnsley was affected by heavy and sustained rainfall which continued for a 10-day period leading up to the first flood which started early in the morning of Friday 15th June 2007. In total there were 352 properties flooded and many of these neighbourhoods had not experienced flooding before and were poorly prepared for responding to flooding. During the two flooding events of 15th and 25th June 2007 approximately four times the seasonal average rainfall for the area was experienced. During a 24 hour period between June 14th and 15th a total of 118mm was recorded at a local weather station, with 68mm recorded in the north-west of the borough at Cannon Hall, Cawthorne. The intense rainfall continued during the days leading up to the 25th June when a further 80mm was recorded at Cannon Hall, this additional rain fell onto ground which was already saturated.

Appendix A

A total of 48 separate localities in Barnsley were affected by the flood where many properties were flooded twice in quick succession. In addition to entire neighbourhoods being inundated, many of these areas comprised of single properties or small clusters of residential properties. 6 distinct communities were severely affected, these being Darton, Lundwood, Darfield Bridge and Bolton-on-Deerne on the river Dearne, and also Low Valley and Aldham Bridge areas on the river Dove. The impact ranged from just a few inches to several feet of water flowing into properties. In many cases properties were affected by diluted untreated sewage which had contaminated the flood waters, when waste water treatment installations and combined sewers were overwhelmed.

Appendix B

Glossary

Annual Exceedance Probability (AEP)	The chance of a flood of a given size happening in any one year e.g. 1 flood with a 1% AEP will happen, on average, once every 100 years.
Catchment	A surface water catchment is the total area that drains into a river or other drainage system.
Catchment Flood Management Plan (CFMP)	A strategic planning tool through which the Environment Agency works with other key decision-makers within a river catchment to identify and agree policies for sustainable flood risk management.
Chance of Flooding	The chance of flooding is used to describe the frequency of a flood event occurring in any given year, e.g. there is a 1 in 100 chance of flooding in this location in any given year. This can also be described as an annual probability, e.g. a 1% annual probability of flooding in any given year. (See AEP)
Climate Change	A long term change in weather patterns. In the context of flood risk, climate change will produce more frequent and more severe rainfall events.
Critical infrastructure	Infrastructure which is considered vital or indispensable to society, the economy, public health or the environment, and where the failure or destruction would have large impact. This would include emergency services such as hospitals, schools, communications, electricity sub-stations, Water and Waste Water Treatment Works, transport infrastructure and reservoirs.
Department for Environment, Food and Rural Affairs (Defra)	The UK government department responsible for policy and regulations on the environment, food and rural affairs.
DG5 Register	A Water and Sewerage Company (WaSC) held register of properties which have experienced sewer flooding (either internal or external flooding) due to hydraulic overload, or properties which are "at risk" of sewer flooding more frequently than once in 20 years.
Environment Agency	The Environment Agency was established under the Environment Act 1995, and is a Non-Departmental Public Body of Defra. The Environment Agency is the leading public body for protecting and improving the environment in England and Wales today and for future generations. The organisation is responsible for wide ranging matters, including the management of all forms of flood risk, water resources, water quality, waste regulation, pollution control, inland fisheries, recreation, conservation and Navigation of inland waterways. It also has a new strategic overview role for all forms of inland flooding.

Appendix B

Glossary *(Cont'd ...)*

Environment Agency Flood Zones	Flood zones on the maps produced by Environment Agency providing an indication of the probability of flooding (from rivers and the coast) within all areas of England and Wales.
Exceedance Flows	Excess flow that appears on the surface once the capacity of the underground drainage system is exceeded.
Flood Risk Management Plan	A plan for the management of a significant flood risk. The plan must include details of; a) objectives set by the person preparing the plan for the purpose of managing the flood risk, and b) the proposed measures for achieving those objectives.
Flood Risk Regulations	Legislation that transposed the European Floods Directive in 2009.
Flood and Water Management Act	The Flood and Water Management Act clarifies the legislative framework for managing surface water flood risk in England.
Floods Directive	The EU Floods Directive came into force in November 2007 and is designed to help Member States prevent and limit the impact of floods on people, property and the environment. It was transposed into English law in December 2009 by the Flood Risk Regulations.
Fluvial Flooding	Resulting from excess water leaving the channel of a river and flooding adjacent land.
Lead Local Flood Authority (LLFA)	The authority, either the unitary council, or county council, with responsibility for local flood risk management issues in its area, as defined in the Flood and Water Management Act.
Local Development Framework (LDF)	A folder of documents which includes all the local planning authority's Local Development Documents (LDDs). The local development framework will also comprise the statement of community involvement, the local development scheme and the annual monitoring report.
Local Resilience Forums (LRF)	LRFs are multi-agency forums, bringing together all organisations which have a duty to co-operate under the Civil Contingencies Act, and those involved in responding to emergencies. They prepare emergency plans in a co-ordinated manner.
Main River	Main Rivers are watercourses marked as such on a main river map. Generally main rivers are larger streams or rivers, but can be smaller watercourses in critical locations.
Ordinary Watercourse	An ordinary watercourse is any other river, stream, ditch, cut, sluice, dyke or non-public sewer which is not a Main River. The local authority has powers to manage such watercourses.

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Glossary (Cont'd ...)

Pitt Review	An independent review of the 2007 summer floods by Sir Michael Pitt, which provided recommendations to improve flood risk management in England.
Pluvial flooding	"Pluvial" flooding (or surface runoff flooding) is caused by rainfall and is that flooding which occurs due to water ponding on, or flowing over, the surface before it reaches a drain or watercourse.
Resilience Measures	Resilience measures are designed to reduce the impact of water ingress to properties and businesses, including measures such as raising electrical appliances, concrete floors etc.
Resistance measures	Resistance measures are designed to keep flood water out of properties and businesses, and could include flood guards, air brick covers etc.
Riparian owners	A riparian owner is someone who owns land or property adjacent to a watercourse. A riparian owner has a duty to maintain the watercourse and allow flow to pass through his land freely.
Risk	In flood risk management, risk is defined as the probability of a flood occurring as a consequence of weather conditions.
Strategic Flood Risk Assessment (SFRA)	An SFRA provides information on areas at risk from all sources of flooding.
Surface Water Flooding	Surface water flooding occurs when flooding from sewers, drains, groundwater, and runoff from land, small water courses and ditches that occurs as a result of heavy rainfall.
Surface Water Management Plan (SWMP)	A tool to understand, manage and coordinate surface water flood risk between relevant stakeholders.
Sustainable Drainage Systems (SuDS)	A sequence of management practices and control measures designed to mimic natural drainage processes by allowing rainfall to infiltrate and by attenuating and conveying surface water runoff slowly compared to conventional drainage.
Urban Creep	The change of permeable areas within the urban environment to impermeable areas. Typical types of urban creep are the creation of patios, paving the front gardens to create hard standing parking areas or house extensions.
Water Framework Directive (WFD)	A European Community Directive (2000/60/EC) of the European Parliament and Council designed to integrate the way water bodies are managed across Europe. It requires all inland and coastal waters to reach "good status" by 2015 through a catchment-based system of River Basin Management Plans.

Action Plan

Having set the strategic direction through the previous sections, the following table is a list of the actions we wish to see delivered to help us meet our 6 Objectives.

Table 3 Table of Actions

No	Action	Delivers which Objective/s	Lead Organisation	Supporting Organisations	Timescale	Source of Funding
1	Establish and provide training for Flood Response Teams	3 & 6	BMBC – Health, Safety & Emergency Resilience Unit (HSERU) & Communities	Other Council services local communities, Flood Wardens & Volunteers	Jan 2018	BMBC – HSERU & Communities
2	Coordinate awareness training for local Flood Wardens and volunteers	3	BMBC – HSERU & Communities	Other Council services, Ward Alliances, local communities, Flood Wardens & Volunteers	Jan 2018	BMBC – HSERU & Communities
3	Complete development and delivery of local Community Emergency Flood Plans	3 & 6	BMBC – Highways	Local communities, Flood Wardens & Volunteers	Jan 2018	BMBC – Highways
4	Raise awareness of the Council's Sand Bag Policy	2	BMBC – Highways & Comms	Wide range of internal and external partners	Jan 2018	BMBC – Highways & Comms
5	Develop Council's Sustainable Drainage System (SuDS) Policy in line with National Standards	1, 2, 3, 4 & 5	BMBC – Highways	Wide range of internal and external partners	Mar 2018	BMBC – Highways
6	Barnsley Relief Plan identifies capital works projects which will provide flood risk	3, 4 & 5	BMBC – Highways	Other Council services	Jul 2018	BMBC – Highways

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No	Action	Delivers which Objective/s	Lead Organisation	Supporting Organisations	Timescale	Source of Funding
	benefits to local communities and/or Council infrastructure			and external partners		
7	Environment Agency - Medium Term Plan: Identifies flood alleviation scheme which are funded Flood defence Grant in Aid (FDGiA) and/or Local Levy which provide flood risk benefits to local communities	1, 3, 4 & 5	BMBC – Highways	Environment Agency	March 2021	BMBC – Highways

Appendix D

Roles and Responsibilities of Risk Management Authorities that Operate in Barnsley

1. Barnsley MBC

The Flood and Water Management Act 2010 identified Barnsley MBC as the Lead Local Flood Authority (LLFA) for its administrative area. This gives the council a strategic role in overseeing the management of surface water runoff and groundwater flood risk as well as the following new powers;

- Power to do works to manage flood risk from surface runoff or groundwater;
- Power to designate structures and features that affect flooding;
- Powers to request information from any person in connection with the authority's flood and coastal erosion risk management functions;

It also gives the Lead Local Flood Authority new responsibilities which can be divided into the following areas;

- Strategic Leadership- bringing together stakeholders and leading on developing a strategy to manage flood risk in the borough (resulting in this document)
- Regulation – changes to the Land Drainage Act giving Barnsley Powers to regulate/consent work that effect any non-Main River (responsibilities for the regulation of main River stay with the Environment Agency)
- Produce Flood Investigation Reports (including determining when an investigation is needed)
- Maintaining a Register and Record of Assets
- Power to designate structures and features that affect flooding or coastal erosion
- Recording Flood Incidents

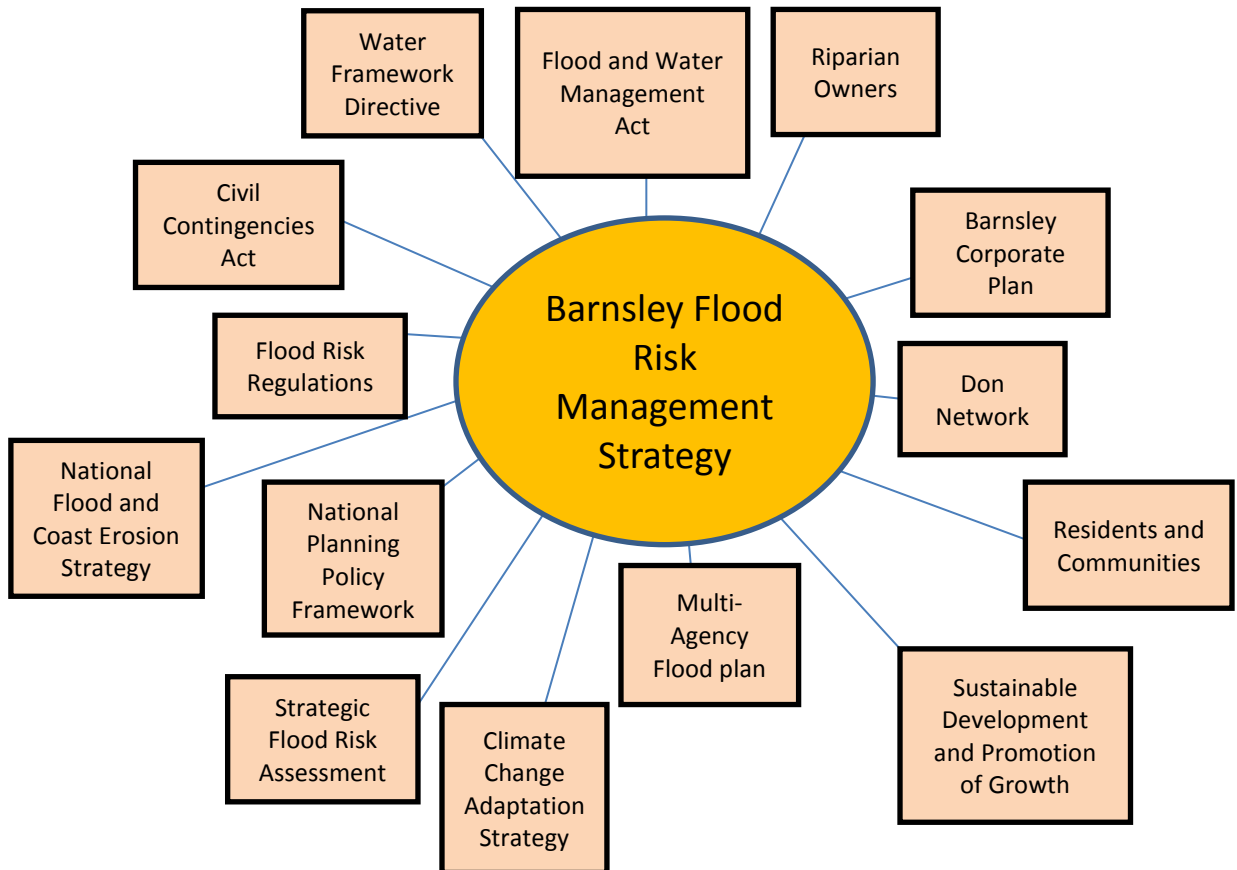
As well as these new roles, some of Barnsley's longstanding responsibilities have important roles to play in flood risk management. These include responsibilities as:

- planning authority
- highways authority
- emergency planning
- parks and open spaces
- social housing

These various responsibilities link to our role as a Lead Local Flood Authority, as well as other statutory responsibilities. We have written this Strategy document to support and explore these links: as we develop and deliver the strategy we can hope to make the most of our position to deliver a good, multi-beneficial approach to flood risk management as well as efficiencies.

National Legislation

Local Consideration



District-wide Initiatives

Figure 2 – Links Between The Flood Risk Management Strategy And Other Initiatives And Legislation

1.1. Barnsley Multi-Agency Strategic Flood Group

Following the events of June 2007 Barnsley MBC recognised that there was a wide range of disparate organisations responsible for individual aspects of flooding and the management of water generally.

With this in mind the authority set about establishing a strategic group of these agencies, along with members from the blue light services and representatives from the key affected areas across the borough to form the Barnsley Multi-Agency Strategic Flood Group (BMAISFG) in 2008. The following are members of the BMAISFG:

- Barnsley MBC
- Dearne & Dove Internal Drainage Board
- Environment Agency
- Representatives from Residents’ Local Flood Groups
- RSPB
- SY Fire Service
- SY Police

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- Yorkshire Water

This forum allows the membership to discuss the strategic nature of their individual work programs and allows the coordination of these programs, and where appropriate these are collated and form a single coherent approach to dealing with flooding and water management issues within the borough. The meetings are held on a quarterly basis meeting.

An organogram of the BMASFG is provided in Figure 3 below.

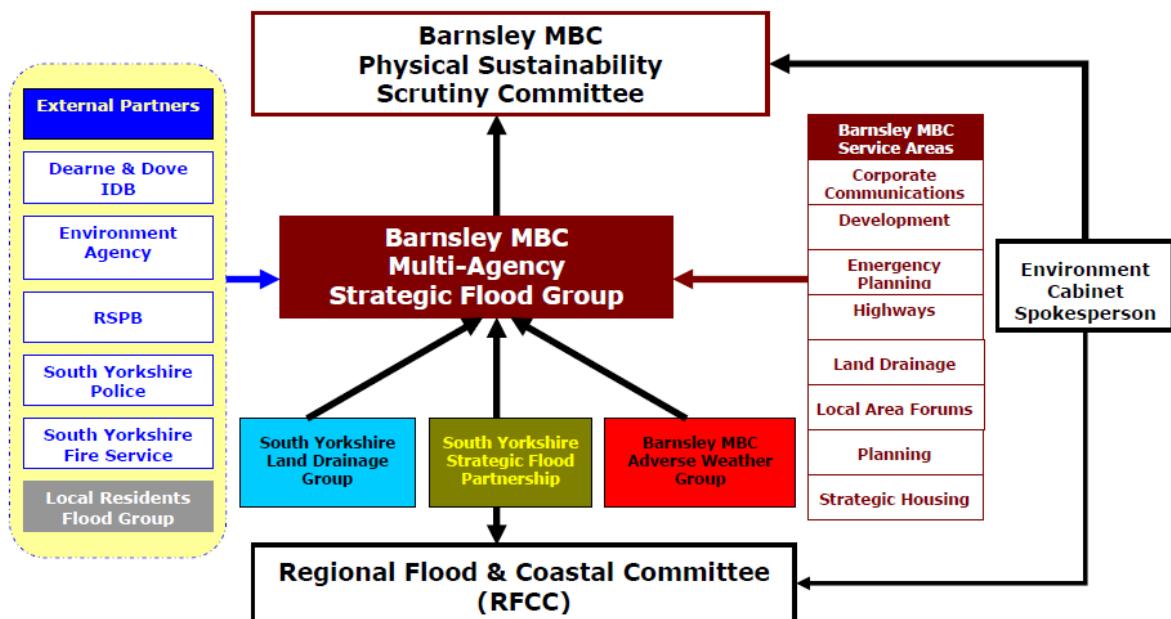


Figure 3 – Organogram of Barnsley Multi-Agency Strategic Flood Group

2. Other Risk Management Authorities

2.1. Yorkshire Water (YWS)

YWS are the sole water company operating in Barnsley. As a provider of water infrastructure services YWS have existing responsibilities in relation to managing flood risk, which have been supplemented by the FWMA. Yorkshire Water's assessment of their responsibilities are summarised below: -

- Where appropriate, assist the LLFA's in meeting their duties in line with the National FCERM Strategy and guidance;
- Where appropriate assist the LLFA's in meeting their duties in line with local strategies in its area;
- Where appropriate share information and data with RMAs, relevant to their flood risk management functions;
- A duty to effectually drain their area, in accordance with Section 94 of the Water Industry Act 1991;
- A duty to register all reservoirs with a capacity greater than 10,000m³ with the Environment Agency;

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- An agreement with Ofwat to maintain a register of properties at risk from hydraulic overloading in the public sewerage system (DG5 register);
- The appropriate management of surface water in combined systems;
- Encouraging the use of SuDS;
- Creating a detailed understanding of flood risk from the public sewer system;
- Explore and implement multi benefit/agency schemes.

In the Company's [Strategic Direction Statement](#) they have an aspiration that over the next 25 years, there will be zero flooding of homes or businesses as a result of failing sewer assets.

2.2. Environment Agency

The Environment Agency (EA) is an executive, non-departmental public body. Its principal aims are to protect and improve the environment, and to promote sustainable development. The EA take lead responsibility for risk-based management of flooding from Main Rivers and the sea and regulation of the safety of reservoirs. They are the enforcement authority for higher risk reservoirs, ensuring they have flood plans and for establishing and maintaining a register of reservoirs. This information must be made available to the public.

The Environment Agency has an important strategic overview role in flood risk management across England including the following tasks:

- Publishing the National FCERM Strategy which provides a clear national framework for all forms of flood risk);
- The conversion of Regional Flood Defence Committees (RFDCs) into Regional Flood and Coastal Committees (RFCCs) with a new remit to include coastal erosion issues;
- Powers to request information from any person in connection with the Environment Agency's flood and coastal erosion risk management functions;
- Power to designate structures and features that affect flooding or coastal erosion;
- Powers to cause flooding and erosion for nature conservation and cultural heritage reasons, and people's enjoyment of these;
- A duty to have regard to FCERM in carrying out other work that may affect FCERM;
- Must act in a manner consistent with this Strategy when carrying out FCRM activities in the authority area;
- Act as a statutory consultee to the SuDS approving body on sustainable drainage that impacts water quality or strategic flood risk;
- Reporting and monitoring flood and coastal erosion risk management, in particular, under section 18 of the FWMA providing a report to the Minister on the progress by all RMAs against the requirements of the FWMA.

In doing this they

- Support Lead Local Flood Authority activities
- Providing the data, information and tools to inform government policy and aid risk management authorities in delivering their responsibilities.

2.3. Danvm Drainage Commissioners (Internal Drainage Board)

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Danvm DC IDB is the sole IDB operating in the Barnsley area and covers a total area of 22,190 hectares with only a 1,466Ha within the Barnsley borough, therefore their role is limited. Under the FWMA the IDB have new duties and responsibilities supplementing their existing powers. Key responsibilities include:

- Power to designate structures and features that affect flooding or coastal erosion;
- Powers to cause flooding and erosion for nature conservation and cultural heritage reasons, and people's enjoyment of these;
- A duty to exercise their functions in a manner consistent with local and national strategies;
- A duty to be subject to scrutiny from lead local flood authorities' democratic processes;
- The ability to work in consortia with other IDBs;
- A statutory consultee to the SuDS approving body on sustainable drainage that impacts land drainage;
- Power to do works on ordinary watercourses flooding within their boundary and, with the Environment Agency's consent, the sea.

2.4. The Highways Agency

As a highway authority the Highways Agency manage a number of major trunk roads and motorways across Barnsley's district. Their sole responsibility in relation to flood risk management is to;

- Provide and manage highway drainage and roadside ditches under the Highways Act 1980;

A duty to exercise their functions in a manner consistent with local and national strategies;

3. Stakeholders: Their Roles And Responsibilities

The Flood and Water Management Act 2010 recognises the following organisations to be Risk Management Authorities (RMA):

- Lead Local Flood Authorities
- The Environment Agency
- Water Companies
- Highways Authorities
- Internal Drainage Boards

All risk management authorities have the following duties and powers:

1. Duty to be subject to scrutiny from lead local flood authorities' democratic processes. They can be called to account for their actions by the Overview and Scrutiny Committee.
2. Duty to co-operate with other risk management authorities in the exercise of their flood and coastal erosion risk management functions, including sharing flood risk management data.
3. Power to take on flood risk functions from another risk management authority when agreed by both sides

The key responsibilities of each of the above authorities are outlined in the following table;

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Table 2 Risk Management Authority (RMA) Functions

Risk Management Authority	Risk Management Functions
Barnsley MBC – Lead Local Flood Authority	<ul style="list-style-type: none"> • Develop, maintain, apply and monitor a Local Flood Risk Management Strategy. • Duty to co-operate with other risk management authorities. • Duty to exercise flood risk management functions in a manner consistent with the Flood and Coastal Erosion Risk Management (FCERM). • Powers to undertake works to manage flood risk from surface water or groundwater. • Power to request information in connection with its Flood Risk Management functions. • Duty Investigate "local" flooding incidents • Duty to maintain a register of assets which have a significant effect on flood risk. • Power to designate structures or features that affect flood risk. • Power to consent works on Ordinary Watercourses (Internal Drainage Boards continue to exercise this power within their areas). • Duty to exercise FCERM functions consistently with the national and local strategies. • Duty to contribute to sustainable development in exercising FCERM functions.
Environment Agency	<ul style="list-style-type: none"> • Strategic overview for all forms of flooding. • Duty to develop and publish the National Strategy for FCERM to cover all forms of flooding. • Powers to request information in connection with FCERM functions. • Powers to designate structures and features that affect flooding or coastal erosion. • Duty to exercise FCERM consistently with the national and local strategies. • Duty to report to ministers on FCERM including implementation of strategies. • Powers to undertake works to manage flood risk from main rivers and the sea. • Duty to contribute to sustainable development in discharging their FCERM functions. • Ability to issue levies on LLFAs. • Duty to have regard to LLFA scrutiny processes. • Powers of regulation of Reservoirs and Main Rivers.
Danvm Drainage Commissioners (Internal Drainage Board)	<ul style="list-style-type: none"> • Power to regulate ordinary watercourses within their district under the Land Drainage Act, including consenting and enforcement. • Power to designate structures and features that affect flooding or coastal erosion.

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Risk Management Authority	Risk Management Functions
	<ul style="list-style-type: none"> • Duty to act consistently with local and national strategies. • Duty to have regard to LLFA scrutiny processes. • Ability to work in consortia with other drainage boards. • Power to undertake works on ordinary watercourses.
Water and Sewerage Companies (Yorkshire Water)	<ul style="list-style-type: none"> • Collection, treatment and supply clean drinking water. • Collect, treat and dispose of waste water. • Duty to have regard to national and local strategies. • Duty to have regard to LLFA scrutiny processes. • Adoption of private sewers.

Please note: Duties and responsibilities are the things we must do, they are statutory requirements. Powers mean we have the ability and the legal weight to allow us to do those things listed, but they are used at the discretion of the RMA.

All these organisations, together with equivalents for the rest of South Yorkshire (Doncaster, Rotherham and Sheffield) are represented on the South Yorkshire Flood Risk Partnership. This meets on a quarterly basis and acts to consider strategic flooding issues on behalf of South Yorkshire and the feed into the Yorkshire Regional Flood and Coastal Committee (YRFCC).

The YRFCC consists of members representing all of the LLFAs across Yorkshire as well as some members appointed by the Environment Agency (EA). They meet once a quarter and have a statutory role to agree how flood risk investment is allocated in Yorkshire as well as approve all EA plans and programmes.

The YRFCC has an important role to play in the direction of future flood risk management and, in particular, the allocation of funds both through the:

- YRFCCs bid on behalf of Yorkshire LLFAs for the nationally determined Flood Defence Grant in Aid (FDGiA)
- Allocating locally raised funds (known as Local Levy money – this is money levied through Council taxes throughout Yorkshire) which are to be spent on the prevention and mitigation schemes by the Organisations listed above.

There are a number of organisations that are not RMAs in accordance with the legal definition, but do have a significant role to play in helping us manage flood risk in Barnsley. They are:

- Canal and Rivers Trust – as managers of the navigable canals and waterways within the region
- Don Network: as Catchment Hosts for the Don and Rother, striving to make improvements to the network of rivers within the catchment
- Local Enterprise Partnerships (LEPs): may provide a source of funding for borough-wide development, incorporating community benefits including flood risk mitigation
- River Stewardship company who help maintain our rivers corridors

In addition to the organisations listed, it is particularly important for us to work closely with communities affected by flooding. An important part of the flood resilience work we do is community engagement and we continue to work with all communities in our

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borough that are at the highest risk of flooding. This is set out in our objectives and improvements to the way we do this are an important part of our Action Plan.

Our web-site does include a number and leaflets for people at immediate risk of flooding, which can be found [here](#)

3.1. Maintenance Responsibilities

There is sometimes confusion over the division of responsibility for maintenance activities, particularly in relation to the maintenance of watercourses. Regardless of the legal division of responsibilities, many people incorrectly perceive maintenance to be solely the responsibility of either the Local Council or the Environment Agency. However in many cases the responsibility lies with the land owner (known as a riparian owner).

Under common law, the person who owns the land or property next to a river or watercourse (sometimes referred to as the Riparian Owner) is responsible for maintaining the beds and banks of the watercourse and clearing any obstructions from the channel and the banks. A Riparian Owner must accept flood flows through their land, even if these are caused by inadequate capacity downstream, but has no duty in common law to improve the drainage capacity of a watercourse. Building "structures" alongside the river or changing the shape and size of the channel could have an impact on flood risk for the landowners and neighbours and is likely to require the permission from the relevant organisation.

We would always recommend talking to the relevant organisation before carrying out any works. More information about these rights and responsibilities can be found in the Environment Agency publication: Living on the Edge.

Barnsley Council, as LLFA under the Flood and Water Management Act 2010 is required under s19 of the Act to undertake investigations into the cause/s once there has been flooding. Once the investigation is complete it should become clear who the responsible body is and whether any necessary mitigation work to either prevent or reduce the impact of flooding is required. The responsible body could be the landowner, or could be one of the RMAs depending on the circumstances.

Where legal action is taken following incidents of flooding any civil action between the affected parties shall be resolved between those affected without any further involvement from the Council.

Funding The Flood Risk Management Program

1. Funding Options for Flood Risk Work

There is a limited amount of funding available to progress the 'List of Measures' in Appendix C. The available funding comes from a number of different sources, the largest proportion coming from central government. A summary of all the funding sources available is summarised in the Table below.

Source of Funding	Description	Indicative budget 2012/13	Administered By	Appropriate For
Flood Defence Grant-in-Aid (FDGiA)	Central government funding for flood (and coastal) defence projects – recently revised to encourage a partnership approach to maximise match-funding, work towards achieving specified outcomes with a requirement to evidence a reduction in flood risk to properties.	£30million (Yorkshire)	Environment Agency	Medium to large capital FRM projects
Local Levy	Annual contributions from Councils to a regional "pot", smaller than the FDGiA budget but offers more flexibility on the type and size of project it can fund.	£2million (Yorkshire)	Environment Agency	Smaller FRM projects or as a contribution to FDGiA projects
Private Contributions	Voluntary, but funding from beneficiaries of projects could make contributions from national funding viable. Contributions could be financial or "in kind" e.g. land, volunteer labour.	Unknown	Barnsley MBC	All projects
Water Company Investment	Investment heavily regulated by Ofwat but opportunities for contributions to area-wide projects which help to address sewer under-capacity problems.	Unknown	Yorkshire Water Services	Projects which help to remove surface water from combined sewers
Section 106 contributions (Town & Country Planning Act)	Contributions from developers, linked to specific development sites where off-site improvements to drainage infrastructure are required to make the developers proposals acceptable.	Unknown	Barnsley MBC	Larger development sites
Community Infrastructure Levy (CIL)	A local levy applied by the Planning Authority on developers to contribute to a general infrastructure fund. Leeds City Council has not yet implemented a CIL scheme. A bid for CIL would have to be made for flood management/drainage improvements against other competing council priorities.	Unknown	Barnsley MBC	All measures outlined in the Strategy

Appendix E

Source of Funding	Description	Indicative budget 2012/13	Administered By	Appropriate For
Developer Schemes	Where a developer, as part of their proposals, construct works for flood alleviation. These can be separate schemes, part of a larger scheme or contributions in kind i.e. land.	Unknown	Barnsley MBC	Development
Council Tax	A "ring-fenced" provision within the annual council tax for the specific purpose of addressing FRM.	Unknown		Key measures in the Strategy
Business Rates Supplements	Agreement from local businesses to raise rates for specified purposes.	Unknown		Measures which address flood risk to businesses
Council Capital Funding	The Council's infrastructure programme prioritising capital improvement projects. The programme has included funding for drainage capacity improvements for a number of years which is targeted at the highway drainage systems.	Unknown		Measures which are small to medium capital projects
Council Revenue Funding	The Council has a number of revenue streams to support technical and admin processes and to maintain council infrastructure. Existing revenue budgets include; Highway Drainage Maintenance, Highway Gully Maintenance, Watercourse Maintenance and funding for the Flood Management Team discharging the LLFA duty for the Council.	Drainage Maintenance (£400k) Gully Maintenance (£500k) Watercourse Maintenance (£80k)		Measures requiring officer time and/or maintenance activity

Collated Feedback from the Barnsley LFRMS Workshop to steer the development of LFRMS

Introduction

A workshop was held at Barnsley Central Library to share the vision for the Barnsley Local Flood Risk Management Strategy and the role and opportunities this provides for the Council, partners and people of Barnsley.

The following is a record of all the comments collated from that workshop, together with statements as to how we have accommodated these comments into the draft Strategy document or how we will deal with them as we go forward.

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
What should the Strategy be about?		
Points posed by Cllr Miller in opening statement	Sandbags: Clarity on Council policy – what is done/not done to help public understanding and manage expectations?	<p>The Council’s sandbagging policy is discussed in section 4.4</p> <p>We recognise that more needs to be done to raise awareness and manage the expectations of the public. We have aimed to give clear messages through the Principles, and reflect the need for further work in the Objectives and Actions</p>
Points posed by Cllr Miller in opening statement	Experience in 2007: flooding caused closure of all bridges within Barnsley – affecting communities access to essential services e.g. Hospital – what has been done/what could be done to limit consequences to communities and to the wider council services i.e. carers couldn’t get across the borough either	<p>The impact of the 2007 floods to the wider community is discussed in section 4.3</p> <p>We are not able to stop the closures of the bridges in large flooding events, such as that experienced in 2007. We can however learn from the experiences and build in contingencies to help limit the impact of these closures when they do happen.</p> <p>We acknowledge that further work is needed to raise this awareness and plan for these circumstances and have included actions within</p>

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
		the Action plan to address this.
Points posed by Cllr Miller in opening statement	Need to address how to deal with new drainage systems with difficult to maintain features (underground tanks in highways etc.) so are reduced in efficiency if not managed	This is can be addressed through the way that we implement the new role in the Planning process. As reflected in the Action Plan we are working with other Authorities across South Yorkshire to agree technical standards for new drainage systems. This should ensure all new systems are fit for purpose and who and how they are maintained is agreed and understood.
Points posed by Cllr Miller in opening statement	There should be no splitting of responsibilities depending on the source of flooding – wet stuff is wet stuff	This is reflected in the Principles we have set out (in particular Principle 2). Throughout the document we have aimed to talk about the impact of flooding, regardless of the source. But as Lead Local Flood Authority we also acknowledge that we need to have an awareness of where responsibility lies for different issues. This will enable us to ensure the actions can be taken forward. As a result we are able to be clear in the action plan who is the responsible body for delivering each action.
Feedback Forms	I would like to see the strategy broken down into: Prevention, Response, recovery.	We have done this in the way we have presented the principles, the objectives and the way we have discussed the management of flooding in section 3.
Group 3 Flipchart/workshop 1 outputs	<ul style="list-style-type: none"> • Impact- not just a guidance doc. • To tackle existing issues as well as new planning developments • Thought through plans (e.g. training for flood wardens) 	The new responsibilities of the SAB are discussed in section 4.3 and Appendix A. How we develop the supporting documents and technical standards for this future role are

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
	<ul style="list-style-type: none"> • Share good practice & learning from others • Setting out responsibilities- will/won't be covered • Design standards • Maintenance • SAB roles and responsibilities • Making the plan relevant- without worry 	<p>included in the Action Plan.</p> <p>All other points we have reflected in either the Principles of the Objectives, to produce a thought through document and action plan</p>
<p>What needed to make those links between the LFRMS to other services/Organisation</p>		
<p>Group 2 Flipchart/workshop 1 outputs</p>	<p>Cross reference existing local and national planning policies/ relevant legislation</p> <ul style="list-style-type: none"> • Identify risks/ existing known flood zones • Surface water flooding risks • Identify stakeholders • Explain responsibilities of local community 	<p>We have addressed these in the following parts of the document:</p> <ul style="list-style-type: none"> • Section 4 • Section 5 • We discuss this in the principles with our main objectives relating to improving awareness and helping communities help themselves. Specifically the responsibilities of riverside (Riparian) Owners are discussed in section 5
<p>Group 2 Flipchart/workshop 1 outputs</p>	<p>Defining responsibilities</p> <ul style="list-style-type: none"> • Will it link to the SFRA? Risk of duplication? • Overlaps need to be identified • How to avoid? • Consultation • Overarching document • Opportunities 	<p>We have signposted existing documents wherever we can, and summaries messages from other documents such as the SFRA wherever possible to avoid repetition and overlap, to produce an over-arching document.</p>

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
Feedback Forms	Explanation of how and which departments work together would be useful in strategy document	<p>We have included a diagram to show just how much of the Councils Services have a link with flooding, and the work of flood risk management in Appendix A.</p> <p>However, we do recognise there is need to work on this to raise awareness and contingency in the way we work. We have included actions within the Action Plan to help us make these improvements</p>
Feedback Forms	We do need to get more information about what is expected of everybody, including the response phase which is still not fully sorted	As above
Group 2 Flipchart/workshop 1 outputs	<p>Opportunities to:</p> <ul style="list-style-type: none"> • Reduce flood risk • Partnership working • Community engagement/ awareness • Improved efficiency • Highlight examples of good practice 	We have acknowledged these opportunities and have captured them in the principles and objectives of the Strategy
Group 2 Flipchart/workshop 2 outputs	<p>Impact to consider on wider services:</p> <ul style="list-style-type: none"> • Staff training • Must follow National Guidelines • Cost and increase workloads • Increased partnership relations 	It is important that we consider these impacts as we deliver the actions

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
Group 3 Flipchart/workshop 1 outputs	What links with existing processes need to be made: <ul style="list-style-type: none"> • Infrastructure planning • Emergency planning • Neighbourhood networks 	We have/will make these links through: <ul style="list-style-type: none"> • Our actions to identify and deliver standards for future drainage systems (through Planning and Development Control functions) • Our discussion in section 2.3 of the response plans, the objectives relating to well thought through plans and actions • Our communication plan includes the use of the connections through the Neighbourhood Network to improve awareness and liaison with our communities
What should be in/out of the Document?		
Group 1 Flipchart/workshop 1 outputs	A. Prevention B. Response C. Recovery <ul style="list-style-type: none"> • Learn lessons from previous events • Work in conjunction with neighbouring boroughs • Responsibilities placed on developers • Clear expectations - Who does what during flooding (response and recovery) 	These are reflected in the Principles and the Objectives, but also discussed in the document in sections 4.3 History of Flooding and 5, Roles and responsibilities
Feedback Forms	Make sure that you keep the public aware – tell your good news stories – how many houses haven't flooded etc. <ul style="list-style-type: none"> • Involve them in practice runs • Raise Awareness 	Raising awareness is the core of our Principles and Objectives, and is the subject of some actions within the Action Plan. Involving communities is at the core of our communication plan
Group 3 general discussions	<ul style="list-style-type: none"> • We need to understand people better and what people want – feed into a communications plan and how we manage community resilience. • Ref to Flood stores – so people know there is a safety net, giving confidence 	The first and final points form part of the Objectives for the Strategy. The sand bag/flood stores are explained within

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
	<ul style="list-style-type: none"> Keep plans esp. Emergency plans live. 	section 2.3
Feedback forms	Inclusion of public (or wardens) and ... to take ownership of strategy before publishing so they will support afterwards – for instance, feedback from flood wardens on what they want to see, and fire service etc.	This is an important part of our communication plan to target consultation and engagement with communities and wardens, on the strategy and for the way we deliver the actions.
Feedback Forms	Would it be useful to involve South Yorkshire Fire and Rescue in the development of the Strategy to give their input if all prevention methods fail?	As above. We also have actions to work with emergency services to build contingency and keep response plans live.
Group 1 Flipchart/Feedback from Workshop 1	<ul style="list-style-type: none"> Publish clear policies Engage with partners Increase public awareness Educate people 	<p>We have written the principles and objectives in a way to give clear messages and provide information about what we do to manage flood risks.</p> <p>Engagement and raising awareness are core to our objectives and are an important part of our communications plan</p>
Feedback Forms	<p>Reference to riparian responsibilities</p> <p>Strategy needs to be honest in terms of current risk and damage and benefits of FCRM and funding which may attract business etc.</p> <p>Also include impact of flooding if BMBC didn't manage what it currently manages</p>	Riparian Responsibilities are set out in section 5 of the document which also signposts information for riparian owners at: Living on the Edge
Feedback forms	linking up YWS risks and upcoming schemes with council/EA risks and schemes is critical to partnership working	<p>Working in partnership is core to how we deliver FCRM, and is set out clearly in the Principles and Objectives.</p> <p>We have also included an action to work with YWS to look at future investments</p>

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
Feedback Forms	Just to reiterate that plans to extract financial contributions from developers must be necessary, reasonable and related to the proposed development if we require run-off rates to be reduced (which we do) then it would not be necessary or reasonable for us to seek financed through the community infrastructure levy.	Noted – that securing financial contributions through planning system are very restricted, see section 4.6 where we have discussed the planning process. What avenues are available for the future management of surface water issues for new developments will be linked with the planning process and associated developer contributions through commuted sums and possible section 106 monies.
Feedback Forms	Surface Water flooding – Planning guidance on this is lacking	See above – need to make links with planning policy and the Local Plan too
What should the final products look like?		
Group 1 Flipchart/Feedback from Workshop 2	<ul style="list-style-type: none"> • In- clear responsibilities of different partners • Ex- jargon, keep short and sweet • Be clear on audience- different versions for different needs • In- linkages to other agencies 	We have kept the text as simple and jargon free as possible, producing two products, the full documents and a simple executive summary to account for different audiences. Section 5 and appendix A sets out what the different partners are responsible for and how we work together.
Group 1 Flipchart/Feedback from Workshop 2	<ul style="list-style-type: none"> • Understandable documentation for all stakeholders • Avoid duplication of info/plans- signpost to E plan and contacts • Concise “NO WAFFLE”- “Jargon” • NPPF, Corporate plan, consider all plans for service areas • Definition of responsibilities of stakeholders 	See above We have sign posted other documents where we can and tried to limit duplication to a minimum

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
Group 3: Feedback from workshop 2	<p>Need to be honest about what is possible, the damage that could result from flooding and the benefits of carrying out different FCRM activities as well as the possibility of funding.</p> <p>Be honest about the economic benefits – for existing businesses and developers/future investors in Barnsley – this also needs to link to the SAB and the Local Plan.</p> <p>Need to include information about what is done to manage flood risk now and its impact</p> <p>Need a communications strategy – need to communicate information that empowers people and communities.</p> <p>Need to be aware that not able to get developers to pay for things off their site through planning systems</p>	<p>We have aimed to be as honest and open about what we do as possible and the approaches we take – through the Principles.</p> <p>We have linked FCRM activity with the Local Plan.</p> <p>We have developed a Communications Plan designed to raise awareness and encourage engagement</p>
Objectives/ Actions		
Group 1 Flipchart/Feedback from Workshop 2	<ul style="list-style-type: none"> • Manage response • Manage recovery • Prevent where possible • Core team to develop strategy • Set clear responsibilities • Integrated with current groups/structures • Publicise positive effects of actions 	<p>We have incorporated most of these points within the principles and set out the responsibilities of partners and communities in the text, see section 5</p> <p>The Strategy has been developed using this feedback and that of others who were unable to attend the workshop. These people have been used as a pre-public consultation group.</p>
Group 2 Flipchart/Feedback from Workshop 2	<ul style="list-style-type: none"> • Realistic/ deliverable/ achievable • Better communication with community • How do we work together, better 	<p>We have used these to set the principles and objectives. We have reviewed our action plan to ensure its clear who and how we work better together, and that the action are realistic/deliverable/achievable</p>
Group 3: Feedback from	Aims and Objectives: creating opportunities and making links with wetland creation and	Reflected in the Objectives

Appendix F

Where was comment made	Comment	How we have dealt with in the Barnsley LFRMS
Workshop 2	value but where this relates to District/Strategic SuDS systems, it needs to link with spatial planning – the Local Plan could also help identify opportunities – links to planning policies	

Other things we need to follow up:

- **Share with others (from feedback forms):** It would be good to get feedback from the EA who attend other similar meetings with other LLFAs
- **Need to make links with (From feedback forms):** the up and coming cabinet report on what the extent of the flood response will be from the Health, Safety and Emergency Res team.