

# Summary of the Bath & North East Somerset Local Flood Risk Management Strategy

2015-2025



## Introduction

The management of flooding is an important issue across Bath & North East Somerset. Flooding can affect communities, businesses, areas with significant heritage value, the environment, and the economy. However, until recently there has been limited understanding about who is responsible for different types of flooding.

Under the Flood and Water Management Act (2010)<sup>1</sup>, Bath & North East Somerset Council has been designated as a Lead Local Flood Authority. This means Bath & North East Somerset Council has a coordinating role for flood risk management across the region, and has an operational role for managing flooding from surface water, Ordinary Watercourses<sup>2</sup> and groundwater. These roles are in addition to the responsibilities Bath & North East Somerset Council already has for managing flooding and drainage from the highway network, and planning for emergencies.

In Bath and North East Somerset Council's coordination role we will take ownership of flood risk management. This does not mean that Bath & North East Somerset Council will act as the lead organisation on all types of flooding. Rather, Bath & North East Somerset Council will work within the legislative framework to identify the appropriate organisation to take a lead in any given location, working in partnership with other organisations as necessary. This will increase accountability to the public.

In our operational role we will take responsibility for working with communities and implementing measures on the ground to reduce flood risk from surface water, Ordinary Watercourses and groundwater. This will be done in partnership with organisations who have a responsibility for managing flooding and local communities. We will undertake this on a prioritised basis, with areas at greatest flood risk from surface water, Ordinary Watercourses and groundwater remaining our highest priority.

The majority of the functions of the Lead Local Flood Authority role are to be carried out by the Council's Drainage and Flooding Team who will act as the single point of contact on all local flood risk matters.

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1 Further details on the Flood and Water Management Act, 2010, are available at: <http://www.legislation.gov.uk/ukpga/2010/29/contents>

2 An ordinary watercourse is any watercourse, ditch, or stream not classified as a Main River. Main Rivers are defined on the Environment Agency's flooding maps on their website.

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3 Risk Management Authorities are defined in the Flood and Water Management Act as the Lead Local Flood Authority, the Environment Agency, water companies, the highways authority and internal drainage boards.



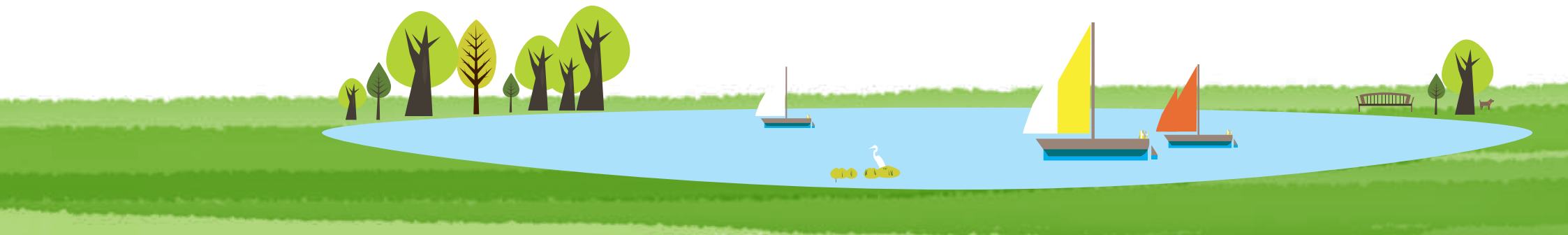
One of the primary responsibilities for the Lead Local Flood Authority under the Flood and Water Management Act is to produce a Local Flood Risk Management Strategy. The Local Flood Risk Management Strategy seeks to clarify roles and responsibilities for flood risk management, help inform all relevant authorities and communities about local flood risk, outline how it can be managed, and identify who is responsible for doing so. The Local Flood Risk Management Strategy also sets out the objectives for managing local flood risk, and identifies the key actions the Council will take to manage local flood risk. Flooding cannot be completely prevented, though its impacts can be reduced and managed through investment and good planning. Therefore, expectations about what can be done to manage local flood risk should be managed to ensure communities are aware of what actions can be undertaken, and the timeframe for doing so.

Given Bath & North East Somerset Council’s legislative responsibilities, the Local Flood Risk Management Strategy focuses on local flood risk. The Local Flood Risk Management Strategy does however also consider flood risk in line with our coordinating responsibility. As part of this, it outlines the roles of other Risk Management Authorities<sup>3</sup> including the Environment Agency, Wessex Water, Highways England (formerly the Highways Agency) and Bristol Water. The Local Flood Risk Management Strategy identifies how the Council will work in partnership with these Risk Management Authorities. The responsibilities of Risk Management Authorities are summarised in Figure 1.

Figure 1 Organisations with responsibilities for flood risk management

Flood Source	Responsible Risk Management Authority				
	Environment Agency	Bath & North East Somerset Council	Bristol Water	Wessex Water	Highways England
Main River	✓				
The Sea	✓				
Surface Water		✓			
Surface Water (on or coming from the highway)		✓			✓
Sewer Flooding				✓	
Ordinary Watercourse		✓			
Ground Water		✓			
Reservoirs	✓		✓		

The Bath & North East Somerset area includes a number of Main Rivers including the River Avon, Cam Brook, and the River Chew. The operational management of flood risk from Main Rivers is undertaken by the Environment Agency who have developed plans and projects in partnership with other organisations. In particular, the Environment Agency has created a Bristol Avon Flood Management Plan that includes details about flood risk in Bath and other locations within Bath & North East Somerset. Wherever the Environment Agency develops plans or projects to manage flood risk on Main Rivers, Bath & North East Somerset Council will work with them as appropriate.



## Objectives of the Local Flood Risk Management Strategy

The purpose of the Bath & North East Somerset Local Flood Risk Management Strategy is to ensure:

- local flood risk is managed through a coordinated approach, and;
- that communities, businesses and individuals are more aware of the risks of flooding, understand who is responsible for dealing with flooding, and are clear about the actions they can take to manage the risk of flooding.

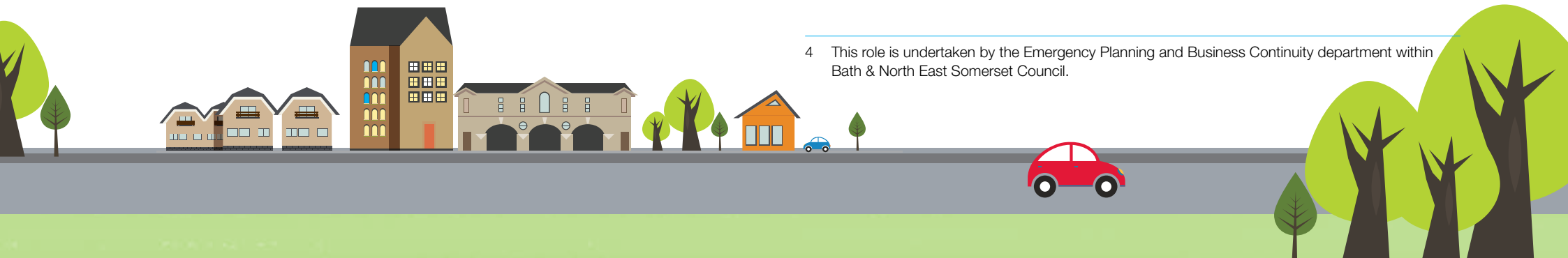
It is helpful to describe local flood risk management in Bath & North East Somerset in three phases, which are illustrated in Figure 2. The majority of actions arising from the Local Flood Risk Management Strategy are related to managing the risks of local flooding, although there are some actions to support the planning for, warning of, and response to, flooding. The warning and responding to flooding incidents is primarily undertaken by the emergency planning authority<sup>4</sup> with the support of the emergency services, including Bristol & Avon Fire and Rescue and the Police.

A series of objectives have been defined to help structure and govern the implementation of the Local Flood Risk Management Strategy. These objectives are to:

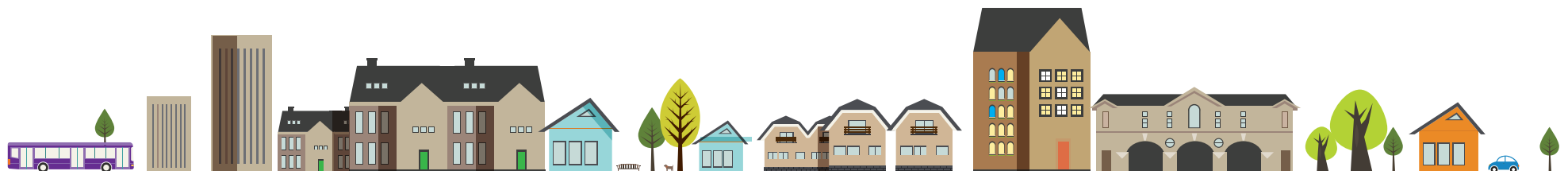
- 1. improve understanding of local flood risk;**
- 2. promote community awareness and build capability for appropriate action;**
- 3. manage local flood risk through capital and maintenance investment;**
- 4. prevent inappropriate development that creates or increases flood risk, and;**
- 5. improve flood preparedness, warning and ability to recover.**

Figure 2 identifies how each of these objectives are linked to the three phases of flood risk management. Objective 2 is an over-arching objective which needs to be promoted during all phases of local flood risk management. It is vital that local communities are aware of local flood risks, know how to prepare and respond to flooding, are empowered to take ownership of local flood risk issues, and understand the roles and responsibilities of Risk Management Authorities.

<sup>4</sup> This role is undertaken by the Emergency Planning and Business Continuity department within Bath & North East Somerset Council.



**Figure 2** Three phases of flood risk management in Bath & North East Somerset



## Partnership Working

A number of partnership groups have been established to help co-ordinate flood risk management in Bath & North East Somerset. These include the West of England Partnership Flood Risk Working Group, the South West Flood Risk Managers Group, the Strategic Flood Board and Operational Flood Working Group. These groups hold regular meetings, and have established lines of communication to facilitate partnership working.

It is critical to work with local communities through Local Flood Representatives. The Local Flood Representatives act as a point of contact between local communities and the Council's Drainage & Flooding Team. They provide an important communication link between residents, the Council, and other Risk Management Authorities.

All residents of Bath & North East Somerset have a role to play in helping to manage flooding. These roles include reporting flood incidents to the relevant Risk Management Authority, understanding the risks they face, ensuring property at risk has been adequately prepared for a flood incident, and helping to reduce the causes of flooding where possible (for example, through clearance of watercourses).

## Flood risk in Bath & North East Somerset

The Bath & North East Somerset regional Surface Water Management Plan has been used to inform the Local Flood Risk Management Strategy. Over 990 reports of recent and relevant flooding from 2009 to 2014 were collated and analysed. The reason historic events were not included was to prevent misrepresentation of recorded flood incidents which may now have been actioned. The recent and relevant flooding data were used to develop a Recorded Flood Incident Register and Interactive Maps of Local Flood

Incidents to visualise the data. As demonstrated in Figure 3, recent and relevant flooding is widespread across the region. There are notable clusters of flooding in Bath, Keysham, Whitchurch, Chew Magna, Chew Stoke, West Harptree, Midsomer Norton and Radstock.

The Local Flood Risk Management Strategy also considers potential flood risk from a range of sources including surface runoff, ordinary watercourses, main rivers, highway drainage, reservoirs, sewers, and canals<sup>5</sup>. The Bath & North East Somerset regional Surface Water Management Plan identified nearly 750 residential properties estimated to be at risk of surface water flooding during a very severe rainfall event<sup>6</sup>, with 22 critical infrastructure<sup>7</sup> also being at risk. The Local Flood Risk Management Strategy has also identified how local flood risk may change across Bath & North East Somerset in the future. These include climate change, new development, and deterioration or blockage of assets which help to manage flood risk. For example, due to the impact of climate change the number of residential properties at risk of surface water flooding could increase by up to 90%, by 2085<sup>8</sup>.

The areas most at risk of local flooding have been identified in the Bath & North East Somerset regional Surface Water Management Plan, and included within the Local Flood Risk Management Strategy. These are known as 'wet-spots'.

These were derived from analysis of historical flood incident data. In total 53 individual wet-spots were identified. Please refer to the Bath & North East Somerset regional Surface Water Management Plan for further details.

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5 It should be noted that it is not the Council's legal duty to investigate or assess flooding from main rivers, reservoirs, sewers or canals, but the interaction between local flood risk and these has been considered.

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6 In this case this is defined as a rainfall event with a 1% chance of happening in any given year.

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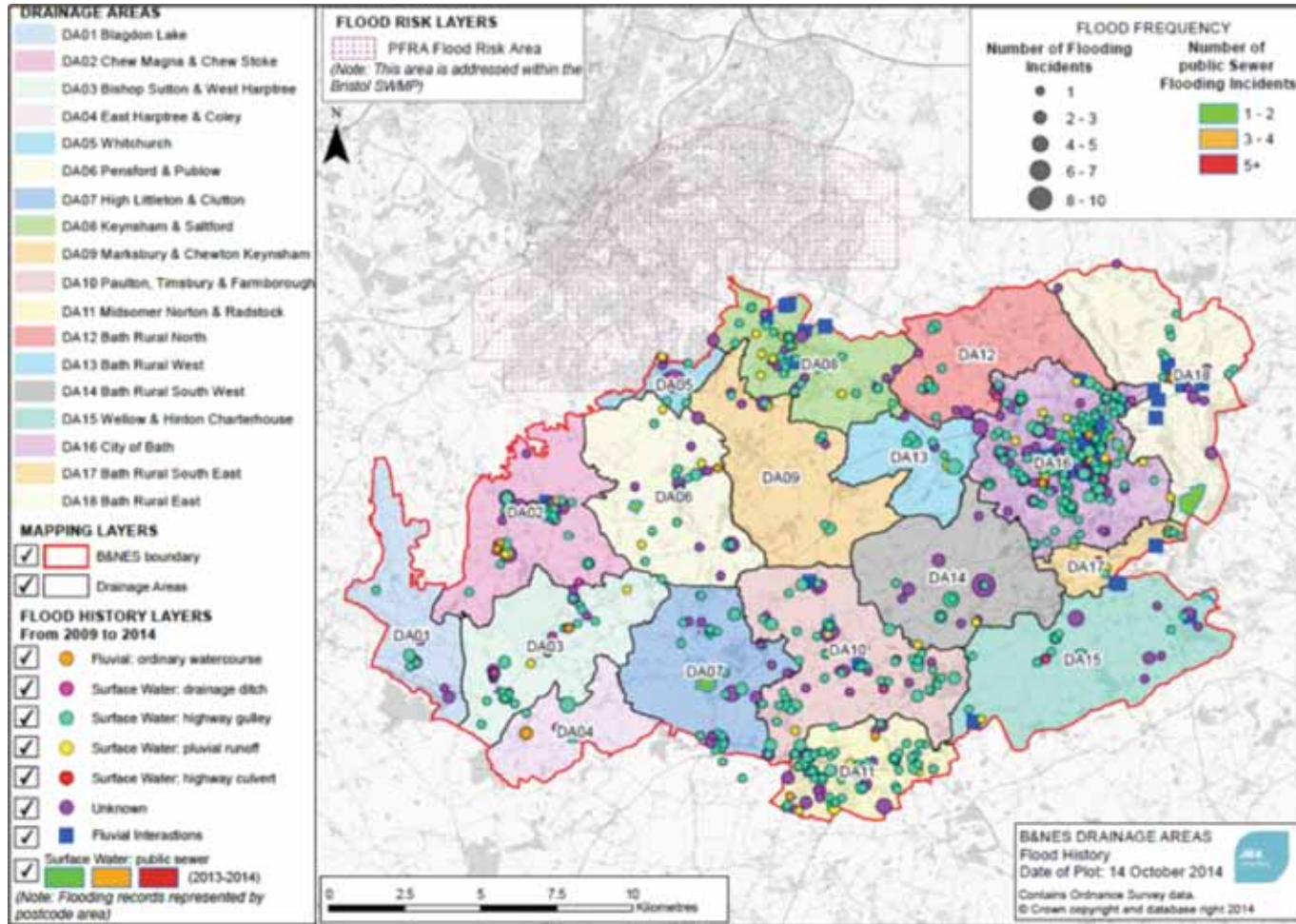
7 Critical infrastructure could include an educational building, health centre/ building, power station, sewerage or water facility, or building where vulnerable people are located, such as a shelters and nursing home.

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8 Based on evidence in the Bath & North East Somerset regional Surface Water Management Plan

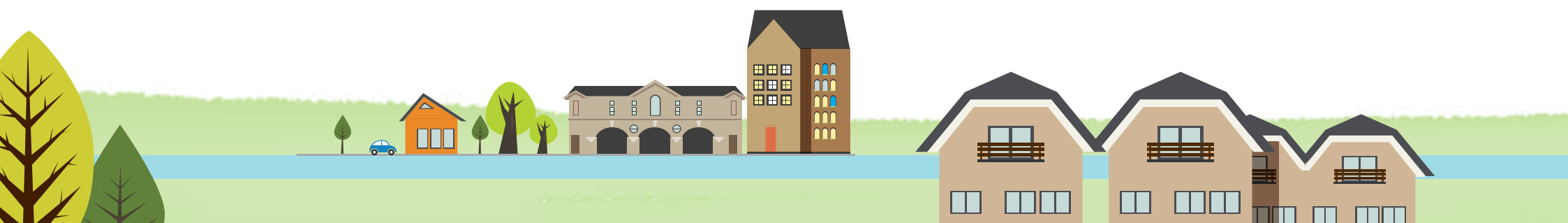


**Figure 3** Interactive Map of Local Flood Incidents in Bath & North East Somerset mapped as part of the Bath & North East Somerset regional Surface Water Management Plan and used to inform the Local Flood Risk Management Strategy



## Actions to manage local flood risk

As part of the Local Flood Risk Management Strategy an over-arching action plan (the 'Strategy Action Plan') has been developed which sets out the measures the Council will take, in partnership with others, to manage local flood risk and achieve the objectives of the Local Flood Risk Management Strategy. The actions proposed as part of this Strategy Action Plan are outlined in Table 1. It should be noted that actions identified in grey have already been completed and those assigned with an asterisk are a statutory duty under the Flood and Water Management Act.





**Table 1** Strategy Action Plan

Phase of Local Flood Risk Management (See Figure 2)	Link to Objective	Action Title (including reference no.)
All phases	<p><b>Objective 2</b> Promote community awareness and build capability for appropriate action</p>	<p><b>2a</b> Establish clearer routes for communicating with communities and businesses about the roles and responsibilities for flood risk</p> <p><b>2b</b> Help communities understand their own flood risk and their responsibilities for managing flooding</p> <p><b>2c</b> Raise awareness of land drainage and riparian responsibilities</p> <p><b>2d</b> Develop a network of Local Flood Representatives to act as a point of contact in the community on flooding issues</p> <p><b>2e</b> Ensure communities know what to do in the event of a flood</p>
Manage the risks of local flooding	<p><b>Objective 1</b> Improve understanding of local flood risk</p>	<p><b>1a</b> Complete a regional Surface Water Management Plan</p> <p><b>1b</b> Continue to develop an updated flood reporting system</p> <p><b>1c</b> Improve the use of visual tools (e.g. GIS) to record and analyse flooding incidents</p> <p><b>1d</b> Continue to complete investigations of flood incidents, where the appropriate criteria is met</p> <p><b>1e</b> Ensure that appropriate data on flooding is shared between organisations, and between organisations and communities</p>
	<p><b>Objective 3</b> Manage local flood risk through capital and maintenance investment</p>	<p><b>3a</b> Continue to work with partners, including adjacent authorities, to develop long term approaches to manage flood risk</p> <p><b>3b</b> Deliver the actions in the the Bath &amp; North East Somerset regional Surface Water Management Plan</p> <p><b>3c</b> Continue to develop a register of assets which significantly affect local flood risk</p> <p><b>3d</b> Designate structures that effect local flood risk, to protect them from alteration or removal</p> <p><b>3e</b> Continue to assess applications for works on ordinary watercourses, through the land drainage consent process</p> <p><b>3f</b> Identify catchments where improved land management could reduce flood risk and/or improve the wider environment</p>



**Table 1** Strategy Action Plan

Phase of Local Flood Risk Management (See Figure 2)	Link to Objective	Action Title (including reference no.)
	<p><b>Objective 3</b> Manage local flood risk through capital and maintenance investment</p>	<p><b>3g</b> Identify critical highway drainage assets, in order to undertake targeted maintenance and respond to issues as the Local Highways Authority</p> <p><b>3h</b> Prioritise maintenance and clearance works to culverts and watercourses</p> <p><b>3i</b> Evaluate flood reports to identify where drainage improvements or other mitigation works are possible</p>
	<p><b>Objective 4</b> Prevent inappropriate development that creates or increases flood risk</p>	<p><b>4a</b> Continue to review planning applications to make recommendations for surface water drainage and managing flood risk</p> <p><b>4b</b> Publish the West of England Sustainable Drainage Systems Guidance for developers, and work across the West of England to co-ordinate sustainable drainage system implementation</p> <p><b>4c</b> Include SuDS planning policy within the Council's Placemaking Plan/ Core Strategy</p> <p><b>4d</b> Continue to provide guidance at the pre-application stage on flooding issues</p> <p><b>4e</b> Consider the need for additional planning guidance on flooding specific to Bath &amp; North East Somerset</p> <p><b>4f</b> Identify areas that are sensitive to surface water flood risk and develop appropriate surface water drainage and flood risk requirements for any proposed development in these areas</p>
<p>Plan for flooding / Warn &amp; respond to flooding</p>	<p><b>Objective 5</b> Improve flood preparedness, warning and ability to recover</p>	<p><b>5a</b> Help develop a multi-agency flood plan for high risk areas in Bath &amp; North East Somerset</p> <p><b>5b</b> Communicate information to communities, businesses and individuals on flood preparedness and recovery</p> <p><b>5c</b> Promote uptake of the Environment Agency's Floodline Warnings Direct service</p> <p><b>5d</b> Improve warnings and proactive mitigation in response to predicted rainfall</p>

In addition, the Bath & North East Somerset regional Surface Water Management Plan has identified location specific actions for each wet-spot. These will be taken forward as part of the action plan, which will set out the actions the Council will take to manage local flood risk. The action plan will be updated annually to reflect progress, and any additional actions for the forthcoming year.



## How will the Council fund measures in the action plan

Flood risk related projects are determined on an annual basis. Where the risks are associated with property flooding and/or health and safety issues these will be scored more highly and prioritised accordingly. In most cases small drainage works can be funded from the Council's revenue and capital funding streams. However, the Council may also seek to secure other dedicated flood risk management funding from Government<sup>9</sup> where a project is of sufficient magnitude to justify additional funding or it is likely to qualify for funding.

Even with these funding sources in place there may still be a funding gap for some flood risk management projects. Where this is the case, other funding sources may need to be considered depending on the direct beneficiaries of investment, or the wider economic growth opportunities a flood risk management project could bring. Relevant funding sources could include, for example:

- West of England Local Enterprise Partnership where a scheme can directly contribute towards economic growth;
- Section 106 agreements can be used to support provision of infrastructure where they are directly related to development, necessary to make the development acceptable, and relevant to planning;
- Bath & North East Somerset Community Infrastructure Levy, and;
- Beneficiaries of the scheme (e.g. homeowners, businesses or utility providers).

The Council will engage with relevant organisations early to identify potential funding based on the benefits of flood risk management investment.

Wider, non-flood risk management funding sources may also need to be considered to contribute towards a project. To access these will require thinking about the wider benefits such as biodiversity, amenity, health/wellbeing, recreation, and education. Sources could include Lottery funding, money raised by the community, and from potential European Union funding sources.

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<sup>9</sup> This could include Flood and Coastal Erosion Risk Management Grant in Aid funding from Central Government, or funding from the Regional Flood and Coastal Committee



## Monitoring the Local Flood Risk Management Strategy

The Local Flood Risk Management Strategy will remain live for a 10 year period to 2025, after which it will be reviewed and updated where necessary. A mid-term update of the Local Flood Risk Management Strategy will take place after five years, in 2020, to check progress against the strategy objectives and update the document where required. The update of the Local Flood Risk Management Strategy in 2020 will be reviewed by the Flood Risk Scrutiny Panel.

In the interim Bath & North East Somerset will monitor the progress of the Local Flood Risk Management Strategy on an annual basis through preparation of the annual action plan, which will be presented to, and agreed by, the Strategic Flood Board. The annual action plan will identify:

- progress against strategy objectives;
- whether actions have been delivered and can therefore be removed from the action plan;
- any changes to legislation or understanding of flood risk, and the implications of this, and;
- set the actions for the forthcoming year.

Prior to 2020, the Local Flood Risk Management Strategy will only be updated if the objectives are not being met, significant flooding occurs, there are significant updates to available data, there are regulatory changes which affect the roles and responsibilities, or there are changes to the funding landscape.

## Contact

For further information on how we are managing flood risk in Bath & North East Somerset please visit our website at <http://www.bathnes.gov.uk/services/environment/land-drainage>.

