



# **Local Flood Risk Management Strategy**

**November 2016 Update**

**Summary Report**

## Background

Bristol City Council, as the Lead Local Flood Authority (LLFA) for the Council's administrative area has a statutory requirement to produce and maintain a Local Flood Risk Management Strategy (LFRMS). This is a duty as identified in the Flood and Water Management Act 2010. The Strategy outlines how we manage flood risk in the city in partnership with the Environment Agency, Wessex Water and Lower Severn Internal Drainage Board.

The BCC LFRMS was first adopted by Cabinet in November 2014. When adopted, the LFRMS had a requirement to be reviewed and updated after two years. Therefore, the report is due to be updated in 2016 following internal approval and scrutiny in BCC.

The relatively short timescale for formal review reflects the recognition of Bristol as a high risk area. This helps ensure that improved understanding of flood risk is regularly incorporated in to the LFRMS. It is important that the LFRMS is adjusted and updated to accommodate future plans in light of new information. The main text of the LFRMS will not change significantly. There are minor changes reflecting changes in practice and to policy and legislation.

In order to register progress and ensure we are achieving the Objectives, Measures and Actions set out in the strategy, a monitoring and review procedure was established. The work undertaken over the last two years and required modifications to the LFRMS and action plan are described below.

## Reducing flood risk

Our work since the adoption of the LFRMS in 2014 has resulted in an estimated 220 homes in Bristol now being subject to a lower risk of flooding. We have also achieved many benefits to flood risk and drainage through the enhanced planning process. Our more significant schemes include construction of the flood defence wall at Cumberland Road and flood mitigation work across Withywood and Whitchurch, at the foot of Dundry slopes.

The Cumberland Road flood wall has reduced the flood risk to approximately 170 properties in and around the Floating Harbour, notably Avon Crescent. This was informed by our studies and made possible because of excellent partnership working with the MetroBus transport scheme and Environment Agency.

Flood relief works at the base of Dundry Hills has alleviated the risk of surface water flooding in the southern most reaches of the city. The risk of flooding has lowered for approximately 20 properties in the Hartcliffe, Whitchurch Park, Bishopsworth, Stockwood, and Hengrove wards.

Other minor schemes across the city have reduced the risk to a further 30 properties. As can be seen from the ongoing Actions, we have many schemes ongoing or in the pipeline to protect many more properties as part of the revised LFRMS.

## Actions completed

As explained above, our efforts of the last two years have resulted in a significant reduction in flood risk to the city. In addition to this, we have made significant progress in ensuring our data is publically available. We now have publically available [online maps](#) to show the flood risks posed to Bristol. These maps also show location and details of the various flood risk assets in the city. The data from our network of rain gauges and river levels is also [available online](#). A significant theme and objective of the LFRMS is to encourage natural based solutions such as sustainable drainage systems (SuDS). In order to help achieve this objective, we have completed a retrofit SuDS scheme on Embleton Road, Southmead as well as used natural solutions as part of a mitigation scheme near Southmead Road. We have also commenced a SuDS feasibility study for Westbury-on-Trym.

The following sections summarise the Actions from the 2014 LFRMS that have completed, are in progress as well as newly introduced Actions.

### **Local Objective 1 - Gain a greater understanding of the flood risks posed to Bristol and its people and places**

- Update and procure Flood Risk and Drainage Advice and Design consultancy Framework
- Formulate methodology to identify significant flood risk assets for the Flood Risk Asset Register
- Install trash screen monitors and rain gauges
- Develop the flood events records database
- Publish appropriate datasets such as the Flood Risk Asset Register on the Council's web site

### **Local objective 2 - Actively manage flood risk infrastructure to reduce the likelihood of flooding causing harm to people and damage to society, the economy and the environment**

- Update and procure watercourse maintenance contract
- Identify and prioritise watercourse structural improvement requirements
- Deliver Dundry flood alleviation scheme
- Progress Sustainable Southmead water sensitive design feasibility work including Stanton Road and Trowbridge Road high risk areas
- Develop process for risk based approach to highway gully maintenance and leaf clearance

### **Local objective 3 - Increase public awareness and encourage communities to take action to manage the risks that they face & Understand communities flooding concerns and priorities, and gather knowledge based on their perception of flooding**

- Produce and publish improved LLFA section on BCC website

**Local objective 4 - Promote sustainable development that seeks to reduce flood risk and includes consideration of climate change**

- Formalise process for reviewing planning applications following development control standards

**Local objective 5 - Improve preparedness for flood events and post flood recovery**

- Setup procedures with the BCC working group to use existing studies to help improve knowledge and flood prediction
- Attend Environment Agency community flood plan meeting(s) to improve knowledge and help improve community flood resilience

Actions outstanding

Below are actions originally suggested for short term completion (from between 2014-16) which will now be extended in to Medium term completion (2018-2020).

**Local Objective 1 - Gain a greater understanding of the flood risks posed to Bristol and its people and places**

- Complete integrated Ashton flood risk study in partnership with EA and WW (note the first phase of this study has commenced)

**Local objective 2 - Actively manage flood risk infrastructure to reduce the likelihood of flooding causing harm to people and damage to society, the economy and the environment**

- Formalise process for consulting on RMA led schemes to maximise inclusion of SUDS and green space

**Local objective 4 - Promote sustainable development that seeks to reduce flood risk and includes consideration of climate change**

- Update the SFRA (see Appendix D) with results from recent studies

Actions removed

Changes in legislation and in central government's stance on sustainable drainage systems for new developments have meant the Sustainable Drainage Approval Body (SAB) was not implemented. The LLFA was instead designated a statutory consultee on Major planning

applications in respect of surface water drainage, hence why the action below has been removed and a new one introduced.

**Local objective 4 - Promote sustainable development that seeks to reduce flood risk and includes consideration of climate change**

- Establish the SAB (SUDs Approval Body) subject to enabling Government Legislation

Actions amended

Again due to the governmental policy change regarding the SAB and SuDS adoption process the following action is amended. Reflecting BCC's approach to adopting SuDS where possible, rather than compulsorily, as would have been the case under the SAB system.

**Local objective 4 - Promote sustainable development that seeks to reduce flood risk and includes consideration of climate change**

- Implement drainage adoption on an optional basis with additional requirements, exclusions and charges to be determined.

In order to better incorporate BCC services and resources it is planned to combine the LLFA Working Group with existing BCC Civil Protection and Resilience groups. The reason for this being there is often an overlap in subject matter, objectives and in BCC staff attending.

**Local objective 5 - Improve preparedness for flood events and post flood recovery**

- Liaise and work in conjunction with colleagues in BCC who have a role to fulfil as the LLFA. To promote and co-ordinate flood response and preparedness across key teams within the authority

Actions added

These new actions have identified system improvements, involvement in new projects to gain greater understanding and new statutory roles for the LLFA.

**Local objective 1 - Gain a greater understanding of the flood risks posed to Bristol and its people and places**

- Begin use of Confirm asset management system and transference of applicable information. Including asset inspections, issuing of maintenance work, records of visits from contractors and developing forecast spend profiles.
- Improve the recording system of flood risk management activities undertaken. To demonstrate clearly to other RMA's and the public the progress made in completion of Strategy actions and the status work carried out.

- Continue to provide flood risk data to BCC Civil Protection Unit to inform emergency management procedures.
- Rerun the Surface Water Management Plan model to reflect recent advances in computer simulation software
- Contribute towards the completion of the Horizon 2020 RESilience to cope with Climate Change in Urban arEas (RESCCUE) project with European partners

**Local objective 4 - Promote sustainable development that seeks to reduce flood risk and includes consideration of climate change**

- Submit comments in line with the agreed procedures and risk based approach on all Major planning applications with regards to surface water management and drainage. To fulfil the role of the LLFA as a statutory consultee.

Total actions complete = 15

Actions outstanding = 3

Actions removed = 1

Actions amended = 2

New actions added = 7

For further details or information regarding any of the above LFRMS content please contact BCC Flood Risk Management Team via;

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