



Local Flood Risk Management Strategy

SUMMARY



May 2013



CAERPHILLY COUNTY BOROUGH COUNCIL

LOCAL FLOOD RISK MANAGEMENT STRATEGY

SUMMARY

The Flood Risk Regulation (The Regulations) came into force in December 2009 and the Flood and Water Management Act (The Act) became law in April 2010. Under this legislation Caerphilly Council Borough Council (CCBC) has been identified as a Lead Local Flood Authority (LLFA) and has been given a number of key responsibilities.

The purpose of The Regulations is to transpose the European Commission (EC) Floods Directive (2007/60/EC), on the assessment and management of local flood risk, into domestic law in England and Wales and to implement its provisions.

In particular, it places duties on the LLFA to prepare a number of documents including:-

- **Preliminary Flood Risk Assessment Report – Approved 22nd June 2011**
- **Flood Hazard and Flood Risk Maps to be completed, approved by Welsh Government and forwarded to the EU by 22nd June 2013**
- **Flood Risk Management Plans to be completed, approved by Welsh Government and forwarded to the EU by 22nd June 2015**

In addition, CCBC must develop, maintain, apply and monitor a strategy for local flood risk management.

This document - **The Caerphilly County Borough Council – Flood Risk Management Strategy**, sets out to satisfy the requirements of The Act.

The Act identifies 9 issues that must be addressed within the Strategy. They are listed below and a section of the report is given to each one:

- **The Risk Management Authorities in the Local Authority's area.**
- **The flood and coastal erosion risk management functions that may be exercised by those authorities in relation to the area.**
- **The objectives for managing local flood risk.**
- **The measures proposed to achieve those objectives.**
- **How and when the measures are expected to be implemented.**

- **The costs and benefits of those measures, and how they are to be paid for.**
- **The assessment of local flood risk for the purpose of the strategy.**
- **How and when the strategy is to be reviewed.**
- **How the strategy contributes to the achievement of wider environmental objectives.**

Methodology

The methodology to identify flood risk and the level of risk in CCBC was set out in the Preliminary Flood Risk Assessment (PFRA), which was approved by the Welsh Government on 22nd June 2011.

The methodology is based on using the flood maps produced by the Environment Agency Wales (EAW). These were used to identify 1km grid squares where flood risk exceeded a defined threshold. These squares are known as Areas Above Flood Risk Threshold (Blue Squares). The key flood risk indicators and their thresholds are as follows:-

- A minimum of 200 people
- A minimum of 20 businesses
- 2 or more critical services

The EAW has identified 59 Blue Squares within CCBC. Where clusters of these Blue Squares occur, it identifies an area of concentrated flood risk. Where four or more Blue Squares are contiguous within a 3km x 3km Square, the whole 3km x 3km square has been considered as an area that could form part of an indicative Flood Risk Area.

The key flood risk indicator for establishing an indicative Flood Risk Area is the numbers of people at risk of being affected by flooding. If there is a minimum of 5,000 people within a series of connecting 3km x 3km grids, as identified above, then an indicative Flood Risk Area has been identified.

Level of Flood Risk

Of the 59 Blue Squares have been identified, using the methodology defined above, 47 of these squares are contained within the Flood Risk Area.

This is shown in Fig 2 CCBC Flood Risk Area and Blue Squares – Section 9 – The assessment of local flood risk for the purpose of the Strategy

The Key Flood Risk Indicators for the CCBC Flood Risk Area have been calculated as follows:-

- Human health consequences –
Number of people (2.23 multiplier) 16,141
- Other human health consequences –
Number of critical services flooded 69
- Economic consequences – number of
non-residential properties flooded 1,955



Flooding from a Blocked Culvert in an Ordinary Watercourse

CCBC has set a high level strategy as follows:-

“To Reduce Flood Risk in every area where significant flood risk has been identified”.

The National Strategy, prepared by the Welsh Government, has set out four Overarching Objectives for the management of flood risk. In considering its strategy CCBC has identified 19 Detailed Objectives that will seek to realise the Overarching Objectives. The Objectives are:

Overarching Objective 1

Reducing the consequences for individuals, communities, businesses and the environment from flooding.

- Reduce the number of people exposed to the risk of flooding.
- Reduce the number of residential and commercial properties affected by the risk of flooding.
- Reduce the number of people exposed to risk of flooding of significant depth and velocity.
- Reduce disruption to critical infrastructure or prepare plans to allow the operations to be maintained.
- Protect and enhance Natura 2000 (N2K Sites)
- Protect and enhance Sites of Special Scientific Interest (SSSIs)
- Protect and enhance Sites of Importance for Nature Conservation (SINCs)
- Contribute to the delivery of Caerphilly Biodiversity Action Plan (BAP)
- Minimise damage to known historic areas and sites: Scheduled Ancient Monuments, Listed Buildings, Conservation Areas, Registered Historic Parks and Gardens and Registered Historic Landscapes.

Overarching Objective 2

Raising awareness of and engaging people in the response to flood.

- Provide systems to give early warning of potential flooding to individuals and communities.

- Provide efficient systems for the management and maintenance of surface water assets and drainage systems .
- Reduce economic damage
- Endeavour to reduce cost of management

Overarching Objective 3

Providing an effective and sustained response to flood events through.

- Creating natural channels and water bodies with minimal modifications
- Improving water quality
- Providing Flood Risk Management Plans for each area subject to flood risk
- Ensuring that measures are designed and constructed in a sustainable way
- Ensuring that CCBC works in partnership with all other Risk Partners and works collaboratively with adjacent Authorities

Overarching Objective 4

Prioritising investment in the most at risk communities.

- Ensuring that investment decisions are prioritised in the most at risk communities on a consistent, defensible basis and are subject to cost benefit analysis.

The Welsh Government has given, for consideration, a list of measures under the following high level themes:

- **Development planning and adaptation (encompassing both new and adaptations to existing developments/landscapes).**
- **Flood forecasting, warning and response.**
- **Land, cultural and environmental management.**
- **Asset management and maintenance.**
- **Studies assessments and plans.**

- **High level awareness and engagement (to increase individual and community resilience).**
- **Monitoring (of the local flood risk issues).**

CCBC has identified a total of 43 detailed measures which will ensure the delivery of The Strategy and the Objectives contained in it.

The measures have been identified within three categories:

- **Prevention of flooding**
- **Preparedness for flooding**
- **Protection against flooding**

Each measure has been given a time scale for implementation as follows:

- **Short term 0 – 20 years**
- **Medium term 20 – 50 years**
- **Long term 50 – 100 years**

This Strategy has been developed on the following principles:

- **A high level objective has been set to reduce flood risk in the County Borough Area, as set out in the Local Flood Risk Management Strategy.**
- **The four overarching objectives, as defined in the National Flood Risk Management Strategy document, have been used as the framework on which the strategy has been developed.**
- **A series of low level objectives have been adopted in order to satisfy the requirements of the four overarching objectives.**
- **The seven themes identified in the Local Flood Risk Management Strategy Guidance for delivery of the strategy have been adopted by CCBC**
- **Measures, both hard and soft, have been identified in order to implement the objectives under each theme.**

- In addition the strategy aims to satisfy additional requirements including collaborative working with other Risk Partners and Sustainable development.
- The strategy also aims to interface with other major strategies and plans developed by CCBC and various external bodies.

In order for The Strategy to be successful it is essential that significant funding be made available in addition to the normal funding arrangements from Welsh Government. This funding will be required to cover the following operations:

- Development of the Flood Risk Management Plans (FRMP) for each of the areas subject to significant levels of flood risk.
- Investigations to allow the Flood Risk Management Plans to be prepared
- Funding at a much more significant level will be required in order to implement the measures which will be identified as part of the Flood Risk Management Plans.