

Summer 2017

Flood Risk Management

Newsletter

Warwickshire Flooding Special:

Ten years since 2007 floods – where are we now?

Ten years have now passed since the July 2007 floods. In this special edition of the Warwickshire Flood Risk Management (FRM) newsletter we reflect upon the impacts at the time, the lessons learnt, and a few select examples of the progress made to reduce flood risk, protecting communities and businesses in Warwickshire.

July 21st 2007

There have been other severe flood events since and prior to July 21st 2007 (e.g. Easter 1998). However, the consequences of the flooding on this day are notable in terms of the impacts upon communities across the county, the lessons learnt, and subsequent changes in the approach to managing flood risk thereafter, both locally and nationally.

July 21st 2007, Warwickshire

- 75 communities affected
- 1800 homes flooded
- 200 businesses flooded
- 60 roads closed
- 20 Damaged bridges
- £90 million insurance bills



High Street, Alcester

Up to 360mm of rain fell in parts of the county. The market towns Alcester (150 houses), Bidford (95), Henley-in-Arden (50), Shipston (69) and Wellesbourne (70) were badly affected whilst areas

of Leamington (6) and Warwick (10) came very close to significant flooding. Around 80% of flooding originated from overwhelmed watercourses such the rivers Avon and Stour.



Stratford Road, Henley-in-Arden



The A429 Fosse Way, South of Wellesbourne

July 21st was not the only major flooding incident in 2007. The previous month, a highly localised storm caused surface water flooding to 42 properties in Cubbington,

Leamington Spa. The following year, separate events caused internal flooding to properties in Fenny Compton (20) and Bedworth (40).

The national response

Warwickshire was not the only region affected in the summer of 2007. 55,000 properties were flooded nationwide. Around 7,000 people were rescued from the flood waters by the emergency services and 13 people unfortunately died; events which triggered key changes in flood risk management; In August 2007 an independent enquiry began into the response to the events across the UK. The resultant [Pitt Review](#) was published in June 2008, making 92 recommendations, many of which many were included in [The Flood and Water Management Act](#), which passed through parliament in May 2010.

The Pitt Review 2008: Key recommendations

- The improvement of flood warnings
- A new role for local authorities to co-ordinate management of surface water flooding
- A new oversight role for the Environment Agency
- Greater spatial planning controls
- Improved emergency planning
- More advice for homeowners

The Act resulted in the formation of Lead Local Flood Authorities (LLFAs) across England. For Warwickshire, this meant a new, specialist, team dedicated to Flood Risk Management at the County Council.

Ten years of progress: Warwickshire's response

Our team has evolved and grown since 2011, now with 10 full time members of staff. A key part of our response was to formulate a strategy. The [Local Flood Risk Management Strategy](#) for Warwickshire was published in April 2016 and sets out our key priorities, including five key response areas:

1. Partnership working
2. New schemes
3. Planning and development
4. Community engagement
5. Emergency planning

The following sections detail just some of the progress which has been made in each of these areas; further information is available from the links provided.

1. Partnership working

Working in partnership has been key to both understanding and coordinating action to reduce flood risk. One of the Council's first actions after the 2007 event was to bring together the various organisations with a role in preventing or responding to flooding through a new Warwickshire **Strategic Flood Forum**. Ten years on, the Strategic Flood Forum continues to meet quarterly with partners including the Environment Agency, Severn Trent Water, and the District and Borough Councils. Intelligence is shared and actions agreed to ensure a coordinated response to developing issues is taken.



The 2017 Flood Summit

Since 2014 we have also organised a number of Warwickshire **Flood Summits**, which bring both partners and

communities together in one venue to share progress and address key challenges.

2. Flood alleviation schemes

Managing Surface Water Flood Risk

The Flood and Water Management Act created a new role for local authorities to coordinate management of surface water flooding. Our resultant [Surface Water Management Plan \(SWMP\)](#) has identified communities where surface water flooding is most likely occur and the likely damage in key locations, helping us to prioritise further investigation. Resultant surveys have identified faults and provided opportunity for the clearance of blockages, both on and off the public highway.

SWMP key figures

- £350k invested into investigations by the Council from 2014-17
- Over 100 Investigations completed
- Over 40 properties better protected

(This number in practice is much higher due to the work undertaken by partners and landowners in making improvements as a result of our investigative work)

Recent property level resilience schemes

Property level resilience (PLR) can include measures such as the installation of flood doors, pumps and raised services. It has been identified to be the most appropriate action to reduce surface water flood risk in a number of communities across the County. The installation of measures to 37 properties at risk in; **Aston Cantlow** (23), **Bulkington** (1), **Eathorpe** (5), and **Grendon** (8), have recently been completed, and further PLR schemes are planned.

The bypass culvert project, Snitterfield

Snitterfield has seen regular flood events over the last two decades. A CCTV investigation and structural survey commissioned by the County Council in 2014 found the existing culvert to be in a state of disrepair, increasing flood risk and creating a major safety risk for local residents should the culvert collapse further. Following further investigation, the most feasible option was to create a new bypass culvert. The £2.4 million scheme in partnership with the Environment Agency (EA) was completed this month, reducing flood risk to 37 properties.



A section of the Snitterfield bypass culvert being installed

Arbourfields Close, Kenilworth

The WCC FRM team have also worked in partnership with other organisations to deliver schemes on the ground. For example, in 2015 and in partnership with Severn Trent Water (STW), WCC completed a scheme to improve surface water and highways drainage, reducing the volume and frequency of surface water flooding to the road and a number of properties. Works also reduced the risk of foul sewer flooding with less surface water entering the foul sewer.



Team members view PLR products in construction

Progress from Severn Trent Water

STW have been investing to improve the day-to-day operation of the sewerage network, and upgrading the capacity of the network in specific known flooding locations to reduce the risk of sewer flooding. A notable example is their [Leamington Strategy](#) which involved works between 2010-2014 better protecting over 175 properties.

STW's Leamington Strategy

- 6.34km of new or enlarged foul sewers
- 1.8km of new surface water sewer to facilitate surface water separation
- £22 million was total spend
- 103 properties better protected from internal flooding

3. Planning and development

Our team has a key role to play in ensuring developments are not at risk of flooding, or do not increase flood risk elsewhere, through the planning process. In March 2015 we became [statutory consultees](#) for surface water flooding, and have since already provided over 1200 tailored responses to the Local Planning Authorities on major applications, promoting the use of Sustainable Drainage Systems (SuDS).



A section of the Clifton Brook to be restored as part of the Rugby Radio Station development

An example is the 6000 property Rugby Radio Station development east of Rugby. The team has been active in ensuring above ground SuDS are installed

throughout the development, which will store storm water and protect local watercourses through SuDS water treatment technologies. We also comment on local and neighbourhood plans to ensure flooding issues are considered at an early stage, and we assess modifications to ordinary watercourses through our [Land Drainage Consenting role](#).

4. Community engagement

Flood Action Groups

The team supports 15 Flood Action Groups in partnership with [National Flood Forum](#), through the Post Pathfinder Project. Our team regularly meet with groups and organise “multi-agency meetings”, and networking meetings between groups. There have been some major successes, for example in Shipston, a community directly affected by the 2007 flooding. Featured in our [last newsletter](#), [Shipston Area Flood Action Group](#) are reducing flood risk by implementing Natural Flood Management (NFM) measures, which store or slow down flood waters further up the catchment during storm events. Ten years on, £110,000 of funding from the Government has recently been awarded to the group in recognition of their progress.

Small Scale Flood Alleviation Grants Scheme

Since March 2015 we have also made available grants to communities through our [Small Scale Flood Alleviation Grant Scheme](#). To date 12 grants have been awarded at a value of just under £40,000. Common uses of grants include undertaking flood risk modelling, CCTV investigations, watercourse enhancements, and property level resilience. Further information on how to apply can be found on our website via the link.

Working with the community at Delamere Road, Bedworth

- A trash screen preventing large debris and litter entering a culvert had in the past become blocked, causing flooding.
- A monitoring system was required to regularly assess its condition. Working with the local community, a CCTV camera was funded and installed.
- The local community is now able to safely check the trash screen is not blocked, particularly during storm events.

Schools engagement

As part of the Pathfinder Project we have also provided interactive sessions to 7 schools in high risk flooding areas such as Kenilworth and Alcester.

5. Emergency response

In 2011, Warwickshire County Council altered their delivery of the ‘Emergency Planning Unit’ by merging with counterparts in Coventry and Solihull to create the [‘Coventry, Solihull and Warwickshire \(CSW\) Resilience Team’](#). The team is made up of expert emergency planning officers, specialists in planning/preparing/responding, which are on constant call to respond to incidents (natural and human).

Technology since 2007 has developed significantly, allowing the team to further understand issues through extensive monitoring, allowing for maps of inundation zones to be developed.

This all accumulated in the Multi-Agency trial scenario led by CSW – ‘Exercise Sahara’ – The team worked with 19 different agencies, which allowed for the effective testing of the response and resilience to a flooding scenario.



Exercise Sahara

Summary

Warwickshire County Council’s One Organisational Plan looks to develop and sustain a society which looks after its most vulnerable members, and seeks opportunities for economic growth. Helping communities at risk of flooding is a key part of achieving these goals.

Often the public have provided essential information for our investigations in locations across the county. Please contact us if you would like to be involved in helping to manage flood risk in your area, or if you are aware of issues in your community. Email flooding@warwickshire.gov.uk or use our [report a flood tool](#).