

## **Chew Stoke - What we have been doing**

2012 saw unprecedented levels of rainfall and one of the wettest years on record. A series of widespread floods occurred across the country. Flooding events across Bath and North East Somerset (B&NES) led to the evacuation of large numbers of people from their homes, with significant damage to property, services and infrastructure. The Chew Valley and the villages of Chew Magna and Chew Stoke in particular were badly affected, regrettably with tragic consequences in the case of the ford at Chew Stoke.

It is important to note that the likelihood of a similar event occurring again remains the same. The occurrence and probability of last year's events does not change the current flood risk in Chew Stoke.

We have been working together to improve our understanding of the flooding within the Chew valley and respond to individual requests for information to help affected communities.

Below is an update on what we have been working on.

### **Report into flooding at Chew Stoke**

An independent Flood Investigation Report into the flooding at Chew Stoke has been prepared on behalf of B&NES under duties as a Lead Local Flood Authority and as prescribed by the Flood and Water Management Act 2010. The report determines the cause of the flooding and assesses the likelihood of a recurrence, along with highlighting the need for measures to manage flood risk. Analysis of data, combined with a collation of resident's views and experiences, highlights how serious and damaging these floods were. The impacts were compounded by a second wave of flooding in November 2012, just as the recovery was underway from the first flood in September.

As a rapid response river catchment, the rivers around Chew Stoke respond rapidly to rainfall and this was exacerbated by saturated ground conditions for much of 2012, leading to an excess of surface water on the roads, insufficient drainage capacity to cope with the heavy rainfall and runoff from agricultural land. The investigation has shown that during the floods of 2012, the source of flooding was from both surface water and rivers. The Chew Stoke Stream combined with flows in the Regil Brook (that passes down Pilgrim's Way), affected properties in the vicinity of The Street. Surface water flooding occurred in the vicinity of Bilbie Close, Wallycourt Road and Bristol Road.

Extremely intense rainfall falling on saturated ground resulted in rapid runoff and some of the highest river levels on record, caused property flooding and led to very high flows and dangerous conditions across the Pilgrim's Way ford. A number of drivers attempted to cross this ford at various times but had to be rescued from their vehicles. Tragically one person died when their vehicle was washed off the ford, becoming lodged under a footbridge some hundred metres downstream.

The report recommends actions, some of which are in progress, others are proposed, to mitigate the impacts of flood risk in the future. These works will be subject to the availability of funding and need to be developed and approved in partnership with public and private

bodies together with affected communities to ensure that any physical measures put in place do not transfer the flooding problem to another location.

An electronic version of the report is available at

<http://www.bathnes.gov.uk/services/environment/land-drainage>

A paper copy can be obtained by contacting Bath and North East Somerset Council.

### Recommended actions for the responsible authorities and timescale for action

Responsible Authority	Recommended Actions	Timescales
Environment Agency	Consider new rain gauges for rainfall intensity alarms to provide warning for both Chew Magna and Chew Stoke	Ongoing
Environment Agency/Bristol Water/B&NES	Complete Chew Valley catchment flood model development to explore operational and flood management options.	Ongoing to be completed early in the new year
Environment Agency/ B&NES	Continue to progress a property level protection scheme and install appropriate protection measures in partnership with the Parish Council.	Ongoing to be completed by End Mar 2014
B&NES	B&NES as LLFA to investigate land drainage problems and runoff issues. Assess the capacity of the existing drainage network (undertaking CCTV surveys where required). Work with landowners to minimise the amount of runoff from agricultural land.	Ongoing to be completed by December 2013
Environment Agency/ B&NES	Explore opportunities to improve the ease and level of public reporting of flooding incidents, to ensure complete record of the impacts is obtained.	Ongoing to be completed by December 2013
Parish Council	Work with B&NES, Environment Agency and Chew Valley Flood Forum to initiate a flood plan and establish flood wardens.	Ongoing
Parish Council and residents	Attend engagement events and take part in flood exercises.	Ongoing
Parish Council and residents	Maintain individual PLP and remain flood aware	Ongoing

### Chew Stoke Property Level Protection (PLP) Scheme

- The Environment Agency are continuing to progress a PLP scheme for Chew Stoke.
- Surveys have been carried out and we will be appointing a company to install the measures with completion by the end of the financial year.

### Rapid Response Catchment and flood warning improvements

- The Environment Agency are focussing on ways to improve the flood warning service in Rapid Response Catchments. Our free Floodline Warnings Direct service is triggered from river level gauges, however, it is possible for flooding to occur before the river levels rise. We advise residents to monitor weather forecasts when rainfall is expected. Monitor the three-day flood risk forecast and sign up to the FREE Floodline Warnings Direct service at [www.environment-agency.gov.uk/flood](http://www.environment-agency.gov.uk/flood)
- The Environment Agency updated the flood warning service in June 2013 to allow all those at risk from flooding in Chew Stoke to register for flood warnings.
- Flood warning thresholds at Chew Stoke gauging station have been established to allow better monitoring of river levels in the Chew Valley. This complements the

existing gauging sites at Chew Magna and further downstream at Compton Dando. This has provided a more timely and accurate flood warning service for Chew Stoke. However, because flooding occurs so quickly in the Chew Valley, warnings may still not be soon enough. Residents should therefore be aware of weather conditions.

### **Survey work and flood modelling for the Chew Valley**

Lewis Brown Chartered Land Surveyors have completed a river bank survey within Chew Magna and Chew Stoke on behalf of the Environment Agency. The data provided by the survey will be used in the Chew Magna/Chew Stoke flood model. We envisage the results of the model being available early next year.

The model will be used to:

- Help answer residents questions about the viability of changes to the river systems, such as altering the confluence of Winford Brook and the River Chew, effectiveness of maintenance practices and understanding the operation of upstream reservoirs.
- Understand flood risk scenarios and allow further improvements to our flood warnings.
- Provide better data to residents for insurance purposes

### **Chew Valley Flood Forum**

- A flood forum for the Chew Valley has been established and is working closely with the Environment Agency, B&NES, Bristol Water and Chew Magna and Chew Stoke Parish Councils.
- The flood forum will have a key role in working with all agencies and the community to help mitigate the impact of flooding.

### **Community Flood Plan**

- The Parish Council are keen to start working on a community level flood plan. The Environment Agency and B&NES have met with relevant Councillors to initiate the flood plan and establish flood wardens.
- The residents of The Street are also developing a flood plan specifically for this location.
- Chew Stoke Church School are currently developing a school flood plan.

### **Surface Water Runoff onto Wally Court Road, Bilbie Road and Bilbie Close**

- B&NES will carry out a full CCTV survey of the existing highway drainage to identify any existing defects or obstructions in the systems.
- The possibility of installing additional highway drainage will be investigated.
- A topographic level survey will be carried over the junctions of Wally Court Road, Woodford Lane and Bilbie Road. With reference to the level survey appropriate adjustments will be made to the surface of the highway to divert surface flows from reaching the low spot in Wally Court Road.
- The land owners on Woodford Hill will be contacted to discuss possible methods such as cut off ditches and swales to reduce or slow the surface runoff from the farmland.
- The installation of additional highway drainage features on Woodford Lane will be investigated in consultation with neighbouring landowners.

## **Pilgrim's Way ford**

- B&NES have installed a water-level gauge board and appropriate warning signage at the ford in consultation with the Environment Agency and the Parish Council. This will be kept under review.

## **Next Steps**

- The Environment Agency to continue progressing a PLP scheme for Chew Stoke.
- B&NES will continue work to reduce the risk of surface water flooding in Chew Stoke.
- Residents should ensure they are prepared for flooding, with a suitable plan in place of what to do if flooding occurs. Complete a personal plan today at: <http://www.environment-agency.gov.uk/homeandleisure/floods/38329.aspx>  
If you would like further advice please contact the Environment Agency.
- Next year, when the river model is complete, the Environment Agency, B&NES and Bristol Water will discuss the outcomes from the model with the Parish Council, Flood Forum and community generally.

## **Further useful information:**

Defra website

<http://www.defra.gov.uk/environment/flooding/manage/propertylevel/index.htm>

Flood Protection Association:

<http://www.floodprotectionassoc.co.uk/>

Know your flood risk:

<http://www.knowyourfloodrisk.co.uk/>

## **Contact details:**

### **Chew Valley Flood Forum**

Secretary: [chewvalleyfloodforum@gmail.com](mailto:chewvalleyfloodforum@gmail.com)

Website: [www.cvff.info](http://www.cvff.info)

### **Environment Agency**

Jody Grabham, Flood and Coastal Risk Management

01278 484806

[SouthWestEnquiries@environment-agency.gov.uk](mailto:SouthWestEnquiries@environment-agency.gov.uk)

### **Bath and North East Somerset Council**

Jim Collings – 01225394041

[Engineering\\_Design\\_Land\\_Drainage@bathnes.gov.uk](mailto:Engineering_Design_Land_Drainage@bathnes.gov.uk)

### **Bristol Water**

Martin Berry - 0845 702 3797

[corporate.affairs@bristolwater.co.uk](mailto:corporate.affairs@bristolwater.co.uk)

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