

## Further Statement from Menston Action Group about Policy EN7

### Bradford Core Strategy Main Modification Examination

April 2016

During the public consultation to the Core Strategy publication draft, we proposed some changes to the wording of Policy EN7. The reasons were elaborated as part of the Core Strategy Examination statements and hearings.

Some changes to the pre-ambble of the policy were made by Bradford Council, but no changes to the actual Policy wording were made.

Policy EN7, Further Statement PS/F060 and the CSPMM statement of consultation therefore do not fully address all the concerns associated with flood risk from all sources, including **groundwater flooding**.

NPPF Paragraph 99 states:

*“Local Plans should take account of **climate change** over the longer term, including factors such as **flood risk**, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change”.*

NPPF paragraph 100 states:

*“Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere”.*

NPPF technical guidance states:

*“Flood risk” means **risk from all sources of flooding** - including from rivers and the sea, directly from rainfall on the ground surface **and rising groundwater, overwhelmed sewers and drainage systems**, and from reservoirs, canals and lakes and other artificial sources”.*

Rising groundwater flooding is different from river flooding or surface water flooding.

The Environment Agency flood risk zone map zones do not assess flood risk associated with groundwater flooding.

Unless the actual Policy EN7 wording is changed to reflect this, it does not go far enough in protecting communities from groundwater flooding and is less likely to be effective.

The current Policy EN7 wording only requires storage of flood water in Flood Risk Zones 2 and 3a.

Serious flooding also occurs in Flood Zone 1, not as a result of rivers or sea, but as a result of rising groundwater, overwhelmed sewers and drainage systems.

The requirements should therefore apply to flooding from all sources including **groundwater** in Flood zone 1.

## Requested amendments of the actual wording of the Policy EN7:

**Policy EN7, item A1.** – please amend as follows:

A1. Integrate sequential testing, **including flood risk assessment from all water sources**, into all levels of plan-making.

**Policy EN7, item A2.** – please amend as follows:

A2. Require space for the storage of flood water **from all sources**. (or simply delete “within Zones 2 and 3a”.

**Policy EN7, item A7.** – please amend as follows:

A7 Require that all sources of flooding are addressed, that development proposals will only be acceptable where they do not increase flood risk elsewhere and that any need for improvements in drainage infrastructure are taken into account, **to control 100 year events including climate change.**”

**Reason:** To comply with the NPPF technical guidance, to ensure that all sources of flooding are addressed and to ensure that the plan is legally compliant.

For new developments, a flow rate discharge constraint is usually required for storm water runoff from a site, resulting in attenuation volume being needed. In addition, current drainage criteria include the requirement for the 1% probability (100 year 6hour volume) to be controlled.

There is overwhelming evidence, including Flood Risk Assessment and Geo-environmental appraisal that the current drainage proposals for development of land at Derry Hill and Bingley Road in Menston will **increase flood risk to neighbouring areas**.

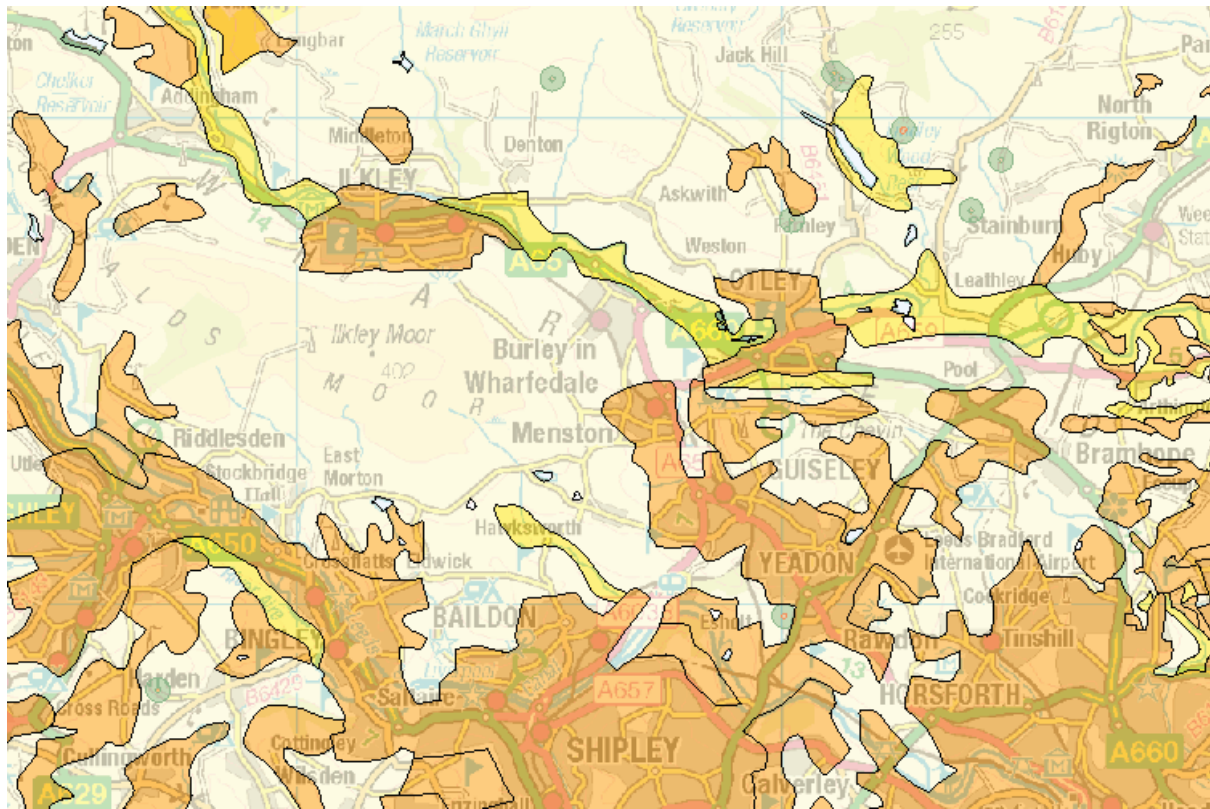
- An independent Review of Menston Flooding Problems highlights that there are specific problems of groundwater flooding which are unique to Menston.<sup>1</sup>
- An important factor is the prevalence of springs and responsive groundwater from the Millstone Grit aquifer underlying the hillside on which Menston sits.<sup>1,4</sup>
- The hillside on which Menston sits is drained by a number of small streams. Some of these are seasonal, with flows only occurring in wet weather and/or when groundwater levels are unusually high.<sup>1</sup>
- Prolonged rainfall events cause significant flooding in the local area.<sup>2</sup>
- These problems are heightened by the unique setting of Menston. The most unusual feature is the transverse drainage of Matthew Dike. Upper sections of Matthew Dike overflow into the Derry Hill catchment in major flood events such as that of 24 September 2012 and 26<sup>th</sup> December 2015.<sup>1,2,3</sup>
- Furthermore, groundwater levels were previously suppressed by the extraction of groundwater at the former High Royds Hospital Pump House. The abstraction ceased on closure of the hospital in 2003. Extension of Menston village southwards has mainly taken place in an era where spring flows were being suppressed by this major abstraction. The spring flows are no longer suppressed and groundwater levels are now typically higher, and lands on the hillslope are now typically wetter than previously.<sup>1</sup>
- The conclusions of a Geo-environmental appraisal for a previously allocated site says it is located within an area in which ground water flooding may be a significant issue. It goes on to say that installation of below ground rainwater / greywater storage, to conform to sustainability codes, is unlikely to be practical owing to the potential positive buoyancy of such tanks within the shallow groundwater regime, and that this may exacerbate the requirement for increased site discharges into existing drainage systems.<sup>4,5</sup>

- The Environment Agency flood zone maps only apply to Coastal and River flooding, not groundwater flooding.<sup>6</sup>
- A recent full planning application has been rejected; one of the reasons being that the applicant had failed to demonstrate that the submitted drainage scheme will be adequate to prevent the increased likelihood of flooding of properties off the site. The development would therefore be contrary to Policies UR3 and NR16 of the adopted Replacement Unitary Development Plan and Paragraph 103 of the National Planning Policy Framework.<sup>7</sup>
- The applicant initially submitted an Appeal to the Planning Inspectorate but has subsequently withdrawn. This is the second time they have withdrawn an appeal for this site.
- Another site at Derry Hill is now a matter for the Court of Appeal later this year.

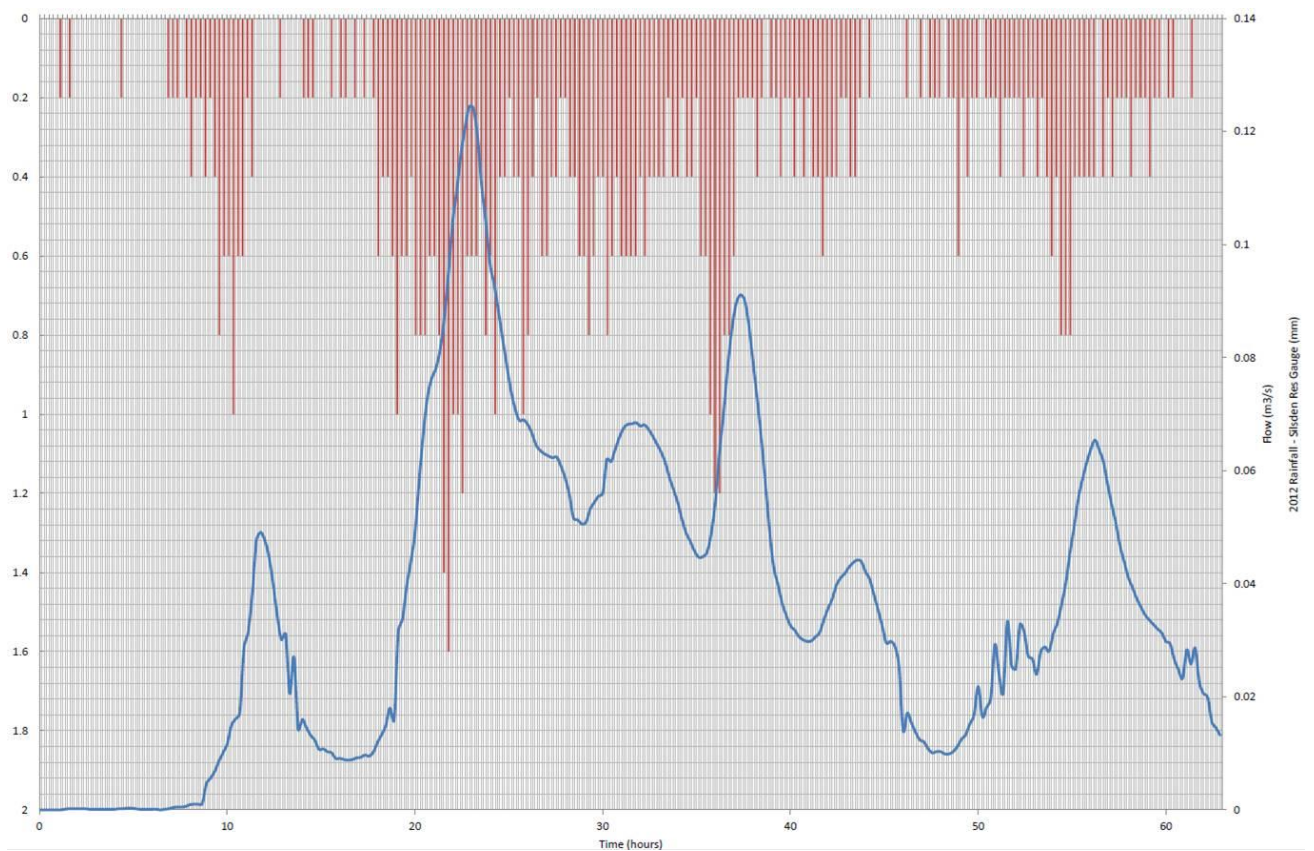
## **References**

1. Reed, DW. Independent review of Menston flooding problems. December 2014
2. Professor J D Rhodes – Witness Statement Ref App/W4705/A/11/2167397 Appeal by Taylor Wimpey. 9<sup>th</sup> April 2013
3. Professor J D Rhodes. A Report on the Observed Rainfall Run-off on the Derry Hill and Bingley Road Sites during Prolonged Rainfall Events. April 2014
4. Sirius Geotechnical & Environmental Ltd. Report C3545.Geo-Environmental Appraisal for land at Bingley Road, Menston. Prepared for Taylor Wimpey (UK) Ltd December 2009.
5. Sirius monitoring results. Dated February 2010. Available January 2015.
6. Environment Agency. <http://apps.environment-agency.gov.uk/wiyby/37837.aspx>
7. City of Bradford Metropolitan District Council. Decisions of the Regulatory and Appeals Committee held on Thursday 29 January 2015.
8. Environment Agency. Rainfall runoff management for developments. Report SC030219. October 2013.
9. UK Government response to consultation on reforming the Water Abstraction Management System. 15th January 2015.
10. City of Bradford MDC. Local Flood Risk Management Strategy. 2016.
11. Pourkashanian, M, and Ingham DB. Flooding Report. 5th June 2015.
12. Rhodes JD, and Dixon, G. General Constraints on Water Run-off From a Rainfall Event.

## Groundwater high vulnerability zones



## Water flow from Derry Hill correlated to measured rainfall





**Derry Hill footpath and substation on a wet day**



**Derry Hill on a dry day**





## Groundwater emergence at Derry Hill





**Groundwater flooding to west of Clarence Drive**





## Groundwater emergence at Bingley Road









**Sewerage overflowing out of the combined sewer on Main Street**





**Flooding at Moorfield Avenue**



**Flooding at Dicks Garth**

