

## **Bradford Core Strategy Examination**

### **Statement relating to Flooding Problems in Menston**

**February 2015**

- 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.<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>

#### **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.













