STATEMENT

20 February 2020

Groundwater flood warnings and alerts

As a result of above average rainfall over the last six months, parts of the country are currently suffering from extensive flooding. This is primarily due to water in rivers, such as the River Severn and River Wye, flowing out of their banks. The Environment Agency have issued a record number of river flood warnings and alerts, and these include warnings and alerts for groundwater flooding. The groundwater flood warnings and alerts cover parts of Dorset, Hampshire and Berkshire and are primarily on areas underlain by the Chalk aquifer.

Map showing groundwater flood warnings (triangles) and alerts (dots) on the Chalk aquifer (dark green) in Wessex, on 18 Feb 2020.

Groundwater flooding typically occurs when groundwater rises up through the ground to meet the land surface. It can also result in flooded basements and the surcharging of sewers. Unlike flooding from rivers it may be slower to respond to rainfall, but once groundwater flooding occurs it may take many months to disperse. Due to the relatively wet winter, groundwater levels across much of the Chalk in southern England are already at above normal levels. As the soils are also currently fully saturated, should there be additional significant rainfall in the next month, there is the potential for more significant groundwater flooding in parts of southern England.

BGS provides monthly summaries of the status of groundwater resources in the UK as part of the UKs Monthly Hydrological Summaries, see: https://nrfa.ceh.ac.uk/monthly-hydrological-summary-
uk. For forecasts of future groundwater resources as part of the Hydrological Outlook UK, see: https://www.hydoutuk.net/.

BGS researches groundwater flooding, for more information on the science of groundwater flooding visit: https://www.bgs.ac.uk/research/groundwater/flooding/home.html.

Practical advice from the Environment Agency to help reduce the impact of flooding from groundwater can be found at: https://www.gov.uk/government/publications/flooding-from-groundwater.

Visit the Environment Agency flood warning website at https://flood-warning-information.service.gov.uk/warnings for the very latest information on flooding. Advice on how to prepare for flooding can be found at: https://flood-warning-information.service.gov.uk/plan-ahead-for-flooding.

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Contacts:

Prof. Rob Ward (BGS, Director of Policy, Environmental Change) rswa@bgs.ac.uk

Dr John Bloomfield (BGS, Geoenvironmental Pressures, Topic Lead) jpb@bgs.ac.uk

For general media enquiries for the BGS, please go through the BGS press office on 07790 607010 or email bgspress@bgs.ac.uk.