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The Modelling of Geohazard Potential Throughout Great Britain Using GIS

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Geohazards in the UK represent a significant, but often unrecognised, threat to people and property. This is most easily demonstrated in terms of the additional costs during construction incurred by the civil engineering industry due to unforeseen ground conditions and by post construction losses incurred by the insurance industry due to building damage. Home buyers are becoming aware of the dangers and an assessment of geohazards including running sand, compressibility, slope instability, collapsible ground and dissolution is being undertaken more frequently by conveyancers as part of the house-buying process. In 2007 this may be even more common as part of the Home Buyers Information Pack in England and Wales. These issues have been researched and reported upon for many years by the British Geological Survey (BGS); including the development of a National Landslide Database and research into shrink-swell clays. On-demand, Ground Stability Reports, are also produced of potential geological hazards for specific locations though an online application system, GeoReports. Nation-wide digital data has also been available for certain hazards on a postcode sector basis using a system developed throughout the 1990's – GeoHAzard Susceptibility Package (GHASP). More recently BGS completed a programme to model geohazard potential using it's modern DiGMapGB-50, vector digital mapping for Great Britain to create a dataset known as GeoSure. The results presented here are the work of the Natural Geohazard modelling team using this data to update the national digital geohazard datasets available from BGS.