

The Ripon area of North Yorkshire provides a well-documented example of subsidence problems caused by the natural dissolution of gypsum deposits. This paper summarizes the findings of a programme of research, commissioned by the former Department of the Environment, which has aimed to assess the degree of hazard associated with this particular form of subsidence and to develop appropriate planning and engineering responses which might be applicable both to Ripon and to other affected areas. The paper draws attention to the sensitive nature of the problem and to the conflict which exists between the benefits of using hazard assessment to minimize the risk to future development within an area, and the possible disbenefits of widely publicizing the existence of a land instability problem. In Ripon, the potential consequences of gypsum-related subsidence, in terms of building damage and road closures, can be significant. In addition, there may be a small risk of personal injury. It is therefore important that the planning of future development in the area should be guided by the results of the hazard assessment carried out in this study and that such development should be subject to controls and mitigation measures, where appropriate. However, the probability of this form of subsidence occurring at any given site is very low and the risk to individual properties is therefore generally very small, especially from the statistical viewpoint normally adopted by insurers. Taking account of these facts, forward planning and development control procedures have been recommended for use by the local planning authority.