Mapping

BGS Geosure

CENTRE MAPS LIVE.

SAMPLES PDF SHP

This report describes the national scale Natural Ground Stability (GeoSure) dataset. The methods used to create the dataset have been critically assessed and its fitness for purpose determined by specialists in BGS.

What is BGS Geosure?

The BGS GeoSure national datasets provide geological information about potential ground movement or subsidence that can help planning decisions.

Who is BGS Geosure for?

Natural ground stability hazards may lead to financial loss for anyone involved in the ownership or management of property, including developers, householders or local government. These costs could include increased insurance premiums, depressed house prices and, in some cases, engineering works to stabilise land or property. Armed with knowledge about potential hazards, preventative steps can be put in place to alleviate the impact of the hazard to people and property. The cost of such prevention may be very low, and is often many times lower than the repair bill following ground movement. The identification of ground instability and other geological hazards can assist regional planners; rapidly identifying areas with potential problems and aid local government offices in making development plans by helping to define land suited to different uses. Other users of these data may include developers, homeowners, solicitors, loss adjusters, the insurance industry, architects and surveyors.

What is included in this dataset?

Shrink-Swell; Swelling clays can change volume due to variation in water content, this can cause ground movement, particularly in the upper two metres of the ground that may affect many foundations. Ground moisture variations may be related to a number of factors, including weather variations, vegetation effects (particularly growth or removal of trees) and the activities of people. Such changes can affect building foundations, pipes or services.

Landslides (Slope Instability); Slope instability occurs when particular slope characteristics (such as geology, gradient, sources of water, drainage, or the actions of people) combine to make the slope unstable. Downslope movement of materials, such as a landslide or rockfall may cause damage, such as a loss of support to foundations or services or, in rare cases, impact damage to buildings.

Soluble Rocks (dissolution); Ground dissolution occurs when certain types of rocks, containing layers of soluble material, get wet and the soluble material dissolves. This can cause underground cavities to develop. These cavities reduce support to the ground above and can lead to a collapse of overlying rocks.

Compressible Ground Some types of ground may contain layers of very weak materials like peat or some clays. These may compress if loaded by overlying structures, or if the groundwater level changes. This compression may result in depression of the ground surface, potentially disturbing foundations and services.

Collapsible Deposits; Some soils may collapse when a load (such as a building or road traffic) is placed on them, especially if they become saturated. Such collapse may cause damage to overlying property or services.

Running Sand; Some rocks and soils can contain loosely packed sandy layers that can become fluidised by water flowing through them. Such sands can ‘run’ (flow), potentially removing support from overlying buildings and causing damage.