

# **National Geological Screening Guidance: Providing information on geology**

---

**A Glossary to support the public consultation on  
National Geological Screening Guidance**

## **Glossary**

We have prepared this glossary to support the public consultation on National Geological Screening Guidance. Explanations of technical terms used in the Consultation document are presented below without using specialist language.

### **BRITPITS dataset**

a database held by the British Geological Survey which holds information on mines, quarries, oil wells, gas wells, and plants which produce ash and gypsum

### **Disposal system safety case**

the suite of reports prepared by RWM which sets out the arguments and evidence to show that we will be able to safely dispose of the UK's higher activity waste

### **GB3D model**

a three-dimensional national-scale geology model of Great Britain

### **Geological attribute**

a term used in National Geological Screening to describe a characteristic of the geological environment that is relevant to the long-term safety of a geological disposal facility

### **Geological disposal facility**

a system of engineered vaults and tunnels, constructed between 200 and 1000m underground for the disposal of solid radioactive wastes

### **Geological environment**

the rock in which a geological disposal facility will be constructed, and the rocks that surround the facility

### **Groundwater**

water present beneath the earth's surface in pore spaces and in the fractures of rock formations

### **Halite (also called rock salt)**

the mineral name for common salt or sodium chloride (NaCl)

### **Hydraulic conductivity**

a property of rocks which describes how easily water can move through them

### **Igneous rock**

rock that was formed from molten or partly molten material, for example, following the eruption of a volcano

### **Karst**

a landscape formed from the dissolution of soluble rocks including limestone, dolomite and gypsum. It is characterized by sinkholes, caves, and underground drainage systems

**Metamorphic rocks**

rock formed from other rocks which have been subjected to extremes of heat or pressure with the result that the minerals they contain are changed chemically  
marble is an example of a metamorphic rock, it is formed from limestone

**Multi-barrier system**

the combination of engineered barriers and the natural barrier provided by the rock which together ensure the safety of geological disposal

**Permeability**

a measure of whether and how water can flow through a rock. Often used interchangeably with *hydraulic conductivity*

**Porosity**

a measure of the void (i.e. "empty") spaces in a material, it is usually given as a percentage of the total volume

**Radioactive waste**

wastes that contain radioactive material

**Radioactivity**

the process by which a nucleus of an unstable atom loses energy by emitting radiation

**Radionuclide**

an atom that has excess nuclear energy and which is therefore radioactive

**Safety case**

A collection of arguments and evidence in support of the safety of a facility or activity (see Disposal System Safety Case above)

**Safety requirements**

the requirements that the geological disposal system has to meet to ensure safety

**Sedimentary rocks**

rocks formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed over millions of years

**Seismicity**

the occurrence or frequency of earthquakes in a region

**Siting process**

the process by which communities will engage with the GDF developer (RWM) on a voluntary basis to identify and select a potential site or sites where a GDF can be safely implemented

**Stratigraphic summaries**

sources of information about the types of rock rocks present at different depths below the earth's surface

**Tectonic activity**

activity relating to movement of the earth's crust