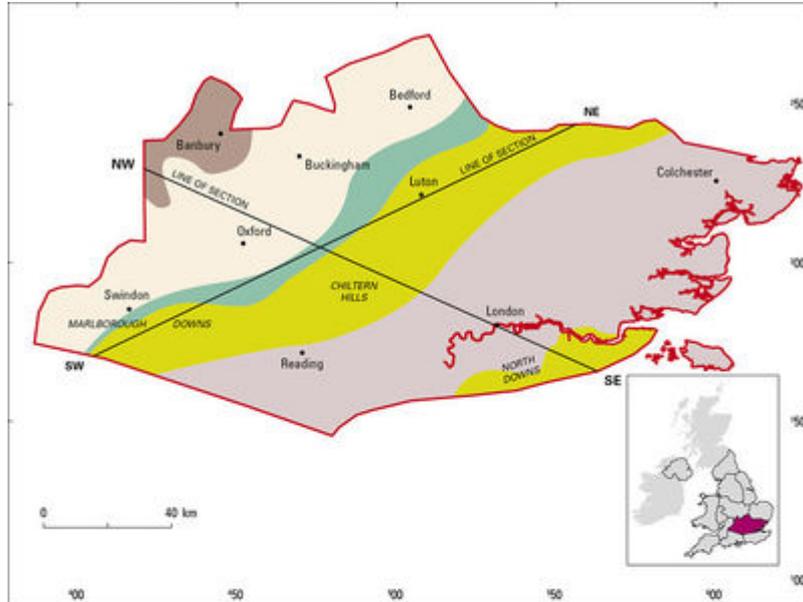


[Help](#)

Category:13. London and the Thames Valley

From Earthwise

[Jump to navigation](#) [Jump to search](#)



Age (My)	Map/Section Descriptor	Geological sub-units	Text sub-units	Text Descriptor
50-65	Palaeogene Sediments	Bracklesham Group London Clay Lambeth Group and Thanet Formation	Low permeability clay, Varied sediments	Younger Sedimentary Bedrock
80-145	Upper Cretaceous Sediments	Chalk Group	White Limestone a major aquifer	
	Lower Cretaceous Sediments	Upper Greensand, Gault Clay and Lower Greensand	Low permeability clay and Sandstone aquifer	
		Wealden Group	Sandstones interlayered with low permeability clays	
145-200	Middle - Upper Jurassic Sediments	Portland and Purbeck Groups, Kimmeridge and Amptill clays, Corallian Group, Oxford Clay and Oolite groups	Shelly limestone aquifers and low permeability clays	Older Sedimentary Bedrock
	Lower Jurassic Sediments	Lias Group		
200-250	Triassic Sediments	Mercia Mudstone Group Sherwood Sandstone Group	Red desert mudstones and sandstone	Basement Rocks
310-350	Carboniferous Rocks	Coal Measures Carboniferous Limestone	Sandstones and mudstones, minor coals Grey Limestone aquifer	
360-420	Devonian Rocks		Sandstones, siltstones and mudstones,	
420-500	Lower Palaeozoic Rocks			

Geological sketch map showing the range and distribution of different rock types in the London and Thames Valley region, in relation to major towns and cities. The extent of London and Thames Valley region is identified on the inset map of the United Kingdom. P902272.

This account provides a broad perspective of the geology of the London and Thames Valley region of southern England, which extends from Essex westwards through Greater London, Hertfordshire and Bedfordshire and into Oxfordshire and northern Wiltshire. Outside Greater London the main towns and cities include Oxford, Swindon, Newbury, Reading, Bedford, Luton, Chelmsford and Colchester. **Figure P902272** provides a geological sketch map of this region showing the rock types occurring in relation to the major towns and cities. Geographically, this region can be divided into three: the London Basin, the Chalk downlands and the Upper Thames Valley. Parts of the region in the west and north lie within other river catchments but their geology is a continuation of that forming the Upper Thames Valley. This account sketches out the geology to a depth of at least a kilometre and

summarises the current and historical use of the geological resources in the area.

At the surface the region is formed of rocks laid down in seas that covered the area in the past. The relatively flat landscape is typical of areas underlain by these sandstones, clays and limestones. Even in the Chiltern Hills and other areas of Chalk downland, where the highest land rises to more than 250 m above sea level, the rocks are very rarely exposed at surface. Nevertheless, the geology is well known from quarries and other surface excavations, numerous shallow boreholes especially in urban areas, water wells and changes in soil type. The region has no known economic resources of coal, rock salt or metallic minerals; consequently there has been no deep mining within the region.

At depths greater than about 300 m below the surface, our knowledge depends largely on deep boreholes drilled in the search for water, coal, oil and gas resources. There are more than 140 such deep boreholes in various parts of the region. Some of the deepest boreholes, in the west of the region, reach more than 1 km depth. The results of these investigations are complemented by interpretations of the patterns of variation in the Earth's gravity and magnetic fields shown by regional geophysical maps and exploration surveys which provide information on the rocks by sending sound waves through the ground (seismic surveys). In the north-eastern parts of the region there are very few deep boreholes and no seismic surveys and, our understanding of the geological structure at depth depends almost entirely on these regional gravity and magnetic surveys.

Subcategories

This category has the following 2 subcategories, out of 2 total.
The number of included categories (C), pages (P) and files (F) is stated in brackets.

- ► [London and the Thames Valley - summary](#) (1 P)

L

- ► [London - the geology of](#) (11 P)

Pages in category '13. London and the Thames Valley'

This category contains only the following page.

B

- [British regional geology: London and the Thames Valley](#)

Retrieved from

'http://earthwise.bgs.ac.uk/index.php?title=Category:13._London_and_the_Thames_Valley&oldid=27575'

[Categories:](#)

- [Regional Geology overview](#)
- [Geological regions of England](#)

Navigation menu

Personal tools

- Not logged in
- [Talk](#)
- [Contributions](#)
- [Log in](#)
- [Request account](#)

Namespaces

- [Category](#)
- [Discussion](#)

Variants

Views

- [Read](#)
- [Edit](#)
- [View history](#)
- [PDF Export](#)

More

Search

Navigation

- [Main page](#)
- [Recent changes](#)
- [Random page](#)
- [Help about MediaWiki](#)

Tools

- [What links here](#)
- [Related changes](#)
- [Special pages](#)
- [Permanent link](#)
- [Page information](#)

- [Browse properties](#)

• This page was last modified on 19 April 2016, at 09:39.

- [Privacy policy](#)
- [About Earthwise](#)
- [Disclaimers](#)

