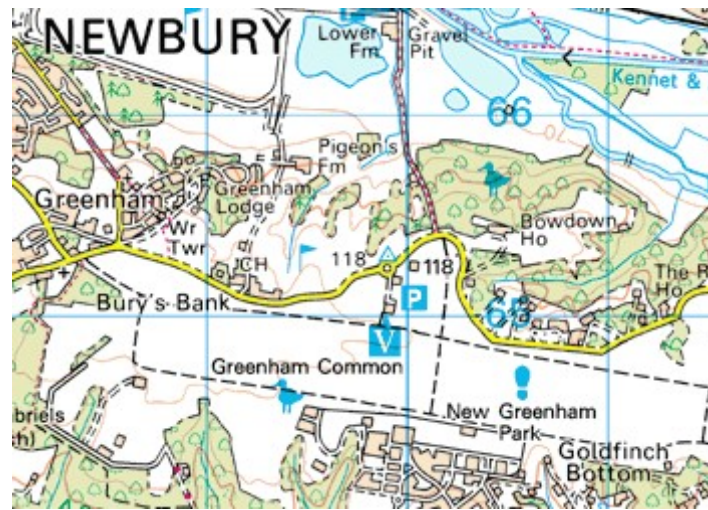


## Greenham Village

The church at Greenham is built on a slight rise, overlooking the valley of the Kennet. The rise is caused by the sands of the Reading Formation and the London Clay of the area being more resistant to erosion when the River Kennet carved the valley. It is common for churches to be built in prominent positions and these usually reflect underlying geological boundaries.



The church itself is built of flint with limestone used around doors and windows. There are a wide range of other rocks to be seen in the churchyard, such as a variety of granites.



A circular walk can be made round the area by parking in the control tower car park and taking the footpath across the common to Bowdown Wood. The Common has open access and a detour can be made to look at Greenham village. This area is part of the BBOWT West Berkshire Living Landscape walk.

The Berkshire RIGS Group aims to work with local authorities, landowners and the general public to safeguard our special landscape for future generations and to promote understanding of this resource.



We designate sites of significance within the county so that these can be conserved and enhanced where appropriate.

Over the year we have a regular programme of walks to areas of interest and anyone is most welcome along on these. We are always happy to give talks to local groups about the area.

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## The geology of the area around Greenham Common



### A remarkable plateau



Greenham and Crookham Commons occur on a long ridge between the Rivers Enborne and Kennet. The ridge consists of Eocene deposits of acid, sandy clays of the Bagshot Formation overlain by plateau gravels, and seated on heavy impermeable clays of the London Clay.

Consequently the soils are a complicated pattern of variable deposits in which free draining soils dominate, but with clay pockets producing extensive seepage zones and springs. These springs give rise to streams creating the small, flushed and waterlogged valleys of alder woodland.

## Greenham Common

The area around Newbury lies in a syncline with the River Kennet flowing almost along the axis of this fold. Some folding occurred just after the deposition of the Chalk bedrock and there has been later movement affecting the area as well.

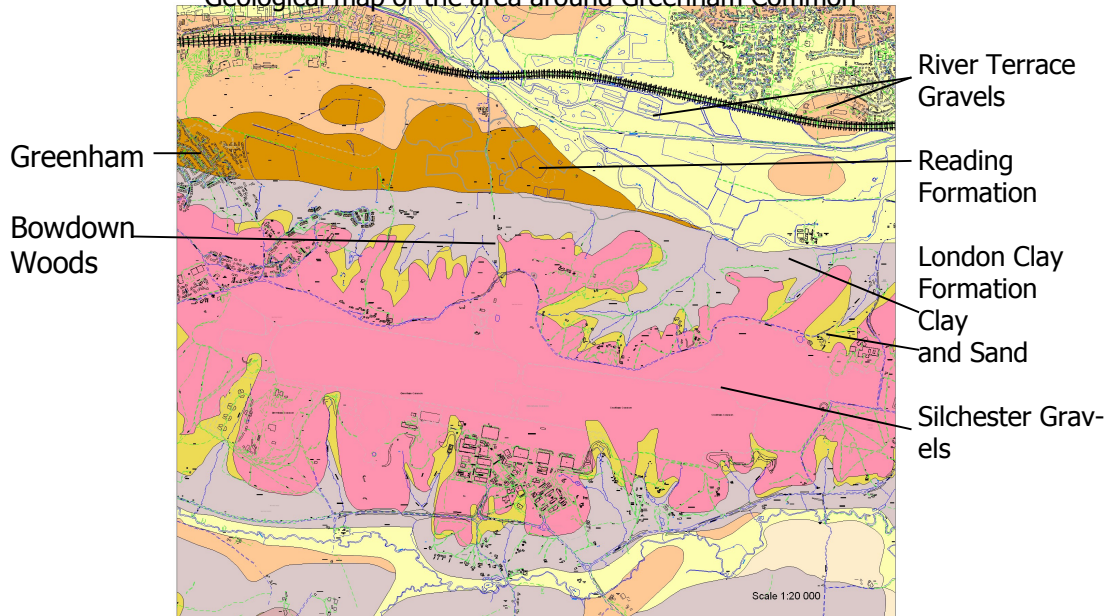
The oldest rocks in the area are the Chalk hills which can be seen to the south and west very well on a clear day. In the centre of the syncline the Tertiary rocks of the Reading Formation and the London Clay Formation are preserved. These clays and sands have been exploited for industry in the area – clays for brickmaking and sands (along with more recent gravel) for the construction industry.

The gravels at the top of the common are some of the oldest gravels in the area and consist of rounded and subangular pebbles of flint and other material washed into the area about 500,000 years ago. At that time Britain was further south and large amounts of glacial meltwaters washed debris into the area from the Midlands.

The River Terrace Gravels found nearer to the present day river are more recent and consist mainly of flints. These were deposited between 25000-10000 years ago. The youngest of these gravels lies at the lowest stratigraphic height as the river has cut down into existing material.

The alluvium in the valley is a sequence of marl and peat beds as well as sands.

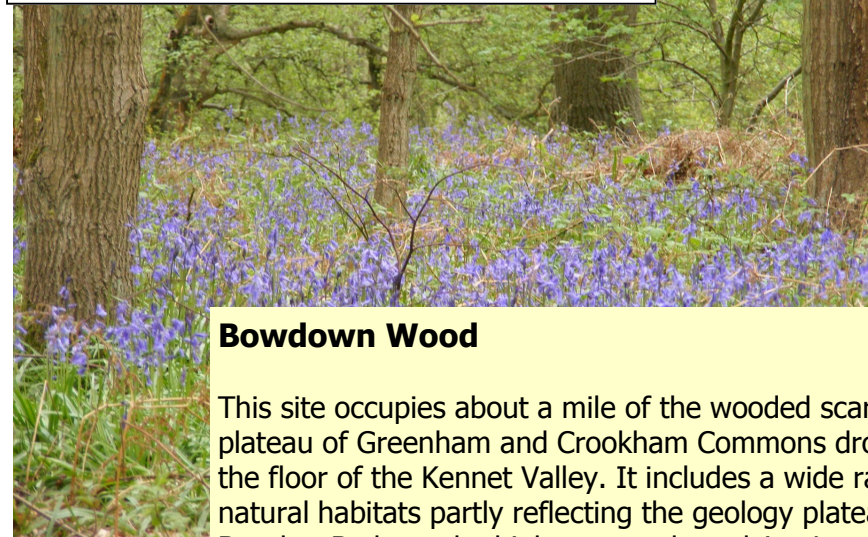
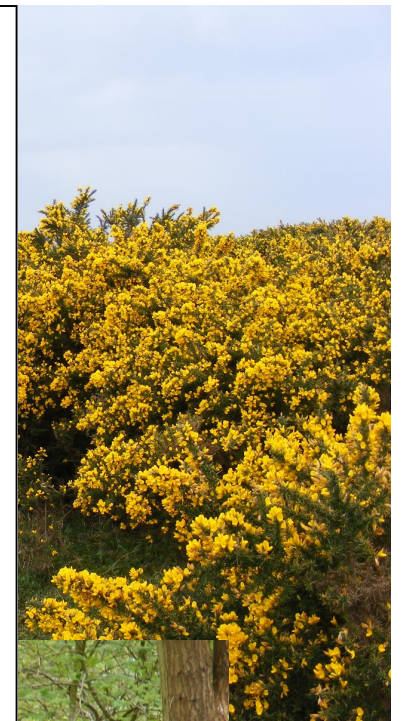
Geological map of the area around Greenham Common



## What can we see today?

We can see the result of deposition and erosion during the last 500,000 years (plateau gravels) and recent River Terrace deposits (last 25,000 years). The Chalk hills to the south have resisted erosion and the capping of gravel on top of the London Clay has prevented it from being further eroded. These gravels would have been much more extensive in the past.

Extensive extraction of gravels (and some sand) has taken place in the area and is still ongoing. One of the positive outcomes of extraction has been the establishment of Thatcham Reed Beds which is important nationally for its extensive reedbed, species rich alder woodland and fen habitats. The latter supports Desmoulin's whorl snail, which is of national and European importance.



## Bowdown Wood

This site occupies about a mile of the wooded scarp where the plateau of Greenham and Crookham Commons drops down to the floor of the Kennet Valley. It includes a wide range of semi-natural habitats partly reflecting the geology plateau gravels and Bagshot Beds on the higher ground overlying London Clay, which outcrops on the lower slopes. The scarp is deeply incised with numerous valleys which carry small spring-fed streams with a very constant flow of unpolluted, nutrient-poor water. These valleys and large areas of seepage zones on the slopes support woodland dominated by alder, mostly growing from large old coppice stools.