

LOCAL GEOLOGICAL SITES

EPPING FOREST DISTRICT



EpG11 Strawberry Hill Pond

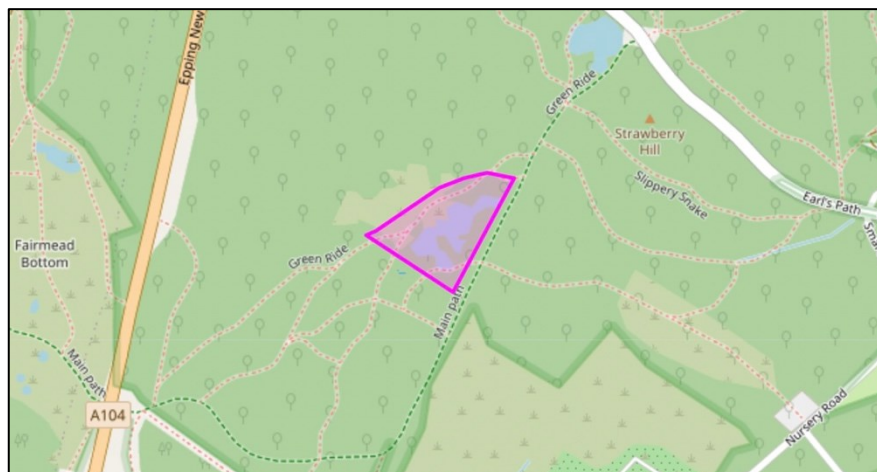
Site location: Epping Forest, Essex

Grid Reference: TQ 413 965

Status: Public – accessible at all times

Summary of the geological interest:

Strawberry Hill Pond was originally a gravel pit. The origin of the gravel (Woodford Gravel) is a subject of scientific debate; as a deposit of a northward-flowing tributary of an early Thames that crossed central Essex at the time or, diametrically opposed, as southward-flowing outwash from the Anglian glacier. Thus, there is significant value in investigating the gravel further. (See also Blackweir Pond and Lord's Bushes, all three serve to illustrate the distribution and genesis of the Woodford Gravel).



Site Assessment. Local Geological Sites (LoGS) in Essex are assessed using criteria based on DEFRA guidance. An assessment form is used which asks key questions under four value categories: scientific, educational, historical and aesthetic. This site has been assessed and qualifies under these criteria.

Access

From the car park on Earls Path Road, next to Earls Path Pond (TQ 415 967), a short walk south along the Three Forests Way leads to Strawberry Hill Pond, a former pit, providing gravel (Woodford Gravel) for repairing the roads in the forest.

Scientific interest and site importance:

The Woodford Gravel is found on both sides of the Roding Valley, extending on the western side over c.10 km discontinuously from Great Monk Wood in the north to South Woodford, and 3 km on the eastern side from north of Chigwell to Woodford Bridge. The Woodford Gravel overlies London Clay.

One line of argument is that the Gravels are hill-top deposits, declining in height northwards, laid down by a northward-flowing tributary of the ancient Thames which crossed central Essex about 500,000 years ago, before the Anglian glacier blocked it and diverted it into its present valley. The presence of Greensand chert suggests a source in the Weald of Kent/Surrey. However, geological mapping of the Gravels shows them to be valley-side deposits, declining in height from 80+ m OD in the north at Great Monk Wood, some 20 m lower than the Stanmore Gravels capping the Epping Ridge at High Beach, to 50-60 m OD in South Woodford. Only in South Woodford, where the Epping Ridge is lower, is the Woodford Gravel a hill-top deposit. More detailed stone counts show the presence of a wide range of northern stone types, such as Rhaxella chert, brought in by the Anglian glacier c.450,000 years ago, which extended down what is now the Roding Valley. Associated with the Woodford Gravel are boulder clay (till) deposits, giving direct evidence of the presence of the Anglian glacier.

The valley-side positions of Blackweir Pond, Strawberry Hill Pond and Lord's Bushes are crucial evidence indicating that the Woodford Gravel is not a hill-top deposit but lateral outwash deposits, possibly forming kame terraces, of the Anglian glacier.

It was in these pits that archaeologist Worthington G. Smith, in a letter to the journal *Nature* in 1883, reported the finding of an eolith (Warren 1925). Eoliths were crudely chipped stones, found in ancient gravels, that were thought to have been fashioned by humans. Most of these dawn stones, as they were called, were found in deposits of gravel that were far too old to contain evidence of human occupation. They were therefore subsequently discredited as evidence of human workmanship.

Condition report. 5 June 2025

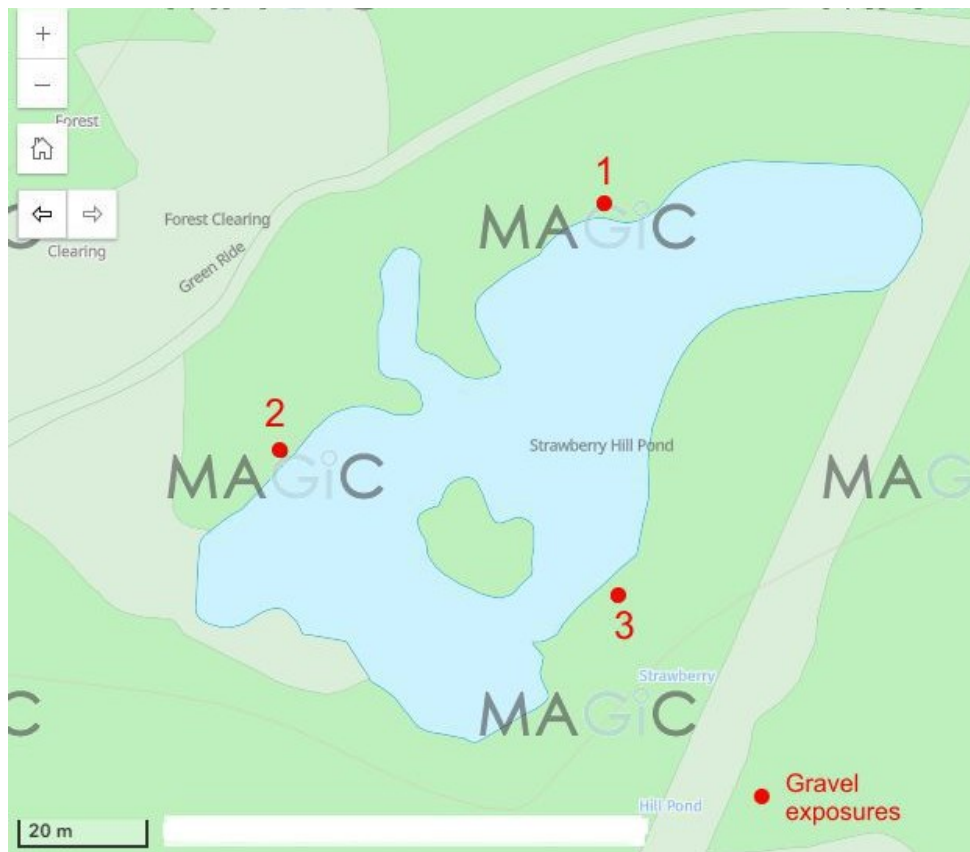
The area around the pond is mostly overgrown with trees and bushes, but accessible outcrops of the gravel can be seen at several places, notably at Points 1 (TQ 4137 9656), 2 (TQ 4133 9653) and 3 (TQ 4137 9650).

References

GIBBARD, P.L. 1994 *Pleistocene History of the Lower Thames Valley*. Cambridge University Press. Page 14.

THOMPSON, P. 1914. On the occurrence of Rhaxella chert in Epping Forest gravel. *Essex Naturalist*. 17. Pages 256-260.

WARREN, S.H. 1925. Palaeolithic and Neolithic implements from the Thames Valley and elsewhere. *Essex Naturalist*. 21. Pages 67-68.



Major points of gravel exposure



View across Strawberry Hill Pond from Point 3 towards Point 1

Photo: P. Allen June 2025



Woodford Gravel (pole is 2 cm wide)

Photo: P. Allen June 2025



Mottled sandy clay beneath Woodford Gravel at Point 2. *Photo: P. Allen June 2025*