

LOCAL GEOLOGICAL SITES

THURROCK DISTRICT



ThG2 Belhus Woods Country Park

Site location: Belhus Woods Country Park, Aveley,

Grid reference: TQ 565 825

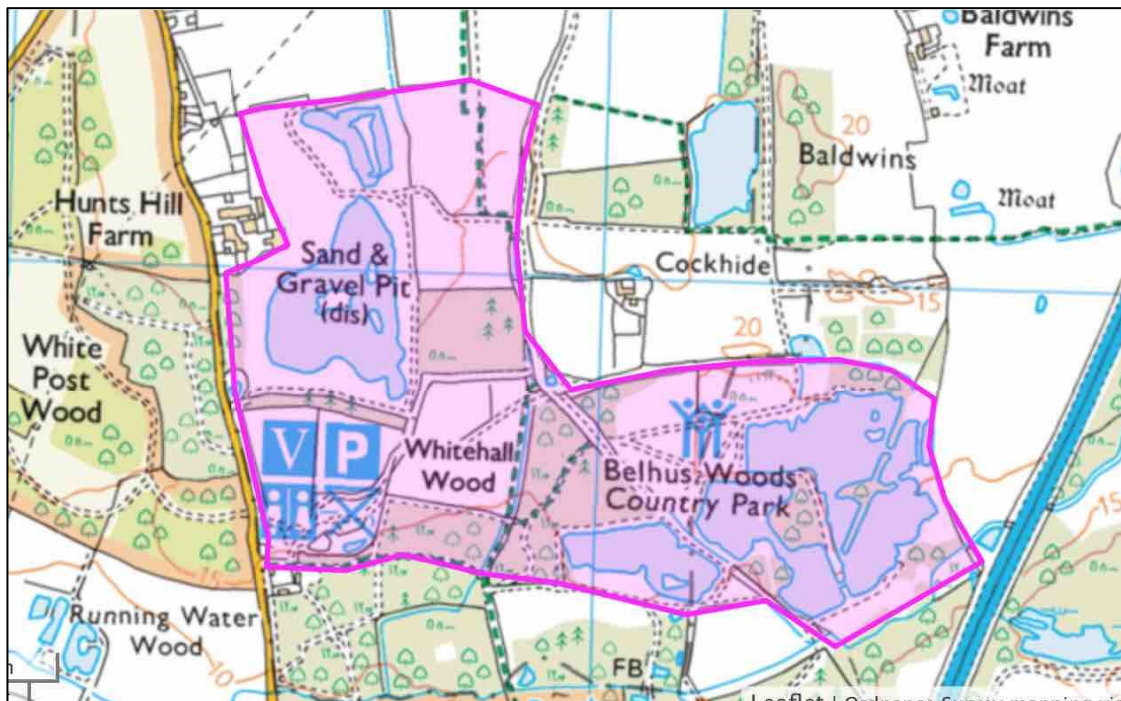
Status: Public access

Summary of the geological interest:

Straddling the border between Thurrock and the London Borough of Havering, Belhus Woods Country Park contains many lakes that were originally gravel pits. The area is situated on the Lynch Hill terrace of the Thames, which contains Corbets Tey Gravel, deposited by the river during the Ice Age, about 300,000 years ago. The gravel underlying the country park is about 4 metres thick and lies directly on London Clay bedrock.

The old gravel workings, formerly known as Hunts Hill Farm and Whitehall Wood Pits, have fortunately been spared 'landscaping'; therefore, most of the pits here retain their original profiles, with some gravel and sand still visible in the banks.

The park is owned by Essex County Council. Access is from the Romford Road and facilities include parking, toilets and a visitor centre.



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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.

Scientific interest and site importance

The Thames was diverted to roughly its present course by the ice sheet during the coldest period of the Ice Age, some 450,000 years ago. It was then a much larger river and its course extended across a wide area, depositing huge amounts of gravel, forming wide floodplains as far north as Hornchurch.

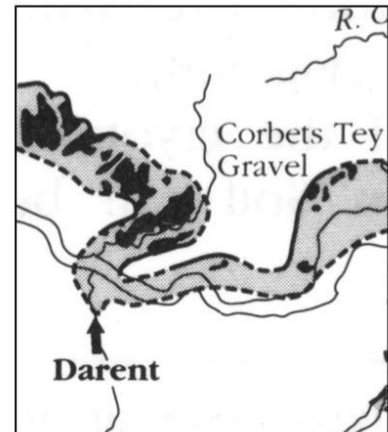
Subsequent glacial/interglacial cycles saw the river cut down through its floodplain to create another floodplain at a lower level, and leaving fragments of the former floodplain as terraces each side of the valley. This process was repeated several times leaving us with a complex sequence of terraces of different ages along the Thames valley, each one providing valuable information about the climate, flora and fauna of Britain during the Ice Age.

Like other gravels of the Thames terraces, over 90 per cent of the Corbets Tey gravel is flint, with the remaining percentage consisting of quartz, quartzite, chert and rare volcanic rocks. These 'exotic' rocks have been incorporated into the gravel as a result of the river reworking its older terraces as it meandered across the valley and cut down through the floodplain. These older terraces were deposited by the Thames when it had a catchment area extending as far as North Wales.

Belhus Woods Country Park is part of Thames Chase Community Forest and is managed by Essex County Council. The old gravel workings, formerly known as Hunts Hill Farm and Whitehall Wood Pits, have fortunately been spared the 'landscaping' that is fashionable nowadays; therefore most of the pits still retain their original profiles with some gravel and sand still visible in the banks. It is important to retain visible gravel exposures for scientific study and public education.



*Corbets Tey Gravel exposed at Hunts Hill Farm.
Photo © Peter Harvey*



300,000 years ago

The route of the Thames through what is now Thurrock during deposition of the Corbets Tey Gravel.

The existing course of the Thames is shown and the outcrops of the gravel are shown in black
(map extracted from Bridgland 1994).

Reference:

BRIDGLAND, D.R. 1994. **The Quaternary of the Thames.**
Chapman and Hall. Geological Conservation Review Series.