

LOCAL GEOLOGICAL SITES

CHELMSFORD DISTRICT



ChG2 Buell Spring, Danbury

Site location: Buell Spring, on the eastern side of Danbury Common.

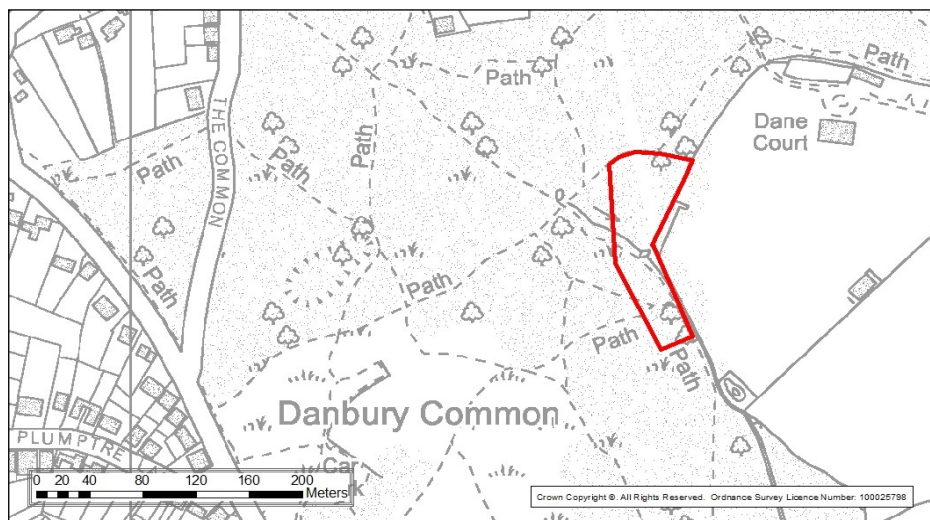
Grid Reference: TL 7839 0451

Status: Accessible at all reasonable times

Summary of the geological interest:

A spring line at approximately 70 metres above sea level runs right round Danbury Hill, where water seeps out of the permeable Danbury Gravel on meeting the impermeable London Clay below. The largest spring here is from Buell Spring, which feeds Buell Brook. The spring itself is some 50 metres to the north, but was piped to this site to enable a pumping station to be built on firmer ground. The pumping station has now been demolished and all that remains of it are the foundations and odd pieces of pipework.

The crystal-clear water of the spring now emerges from a cast iron pipe next to the foundations of the pumping station. Of particular interest is the accumulation of orange/red-coloured 'bog-iron' in the damp ground between here and the site of the spring further up the hill, which is a cementing of the soil by the iron compounds leached out of the gravel.



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

Scientific interest and site importance

Buell Spring is not of scientific interest but is of considerable educational interest. It is a good example of a natural spring. It also has a historical connection, formerly being

an important source of water for the area. Whitaker (1916) states that the water was supplied to Battlesbridge, Little Baddow, Runwell, Sandon and Wickford station.

Other information

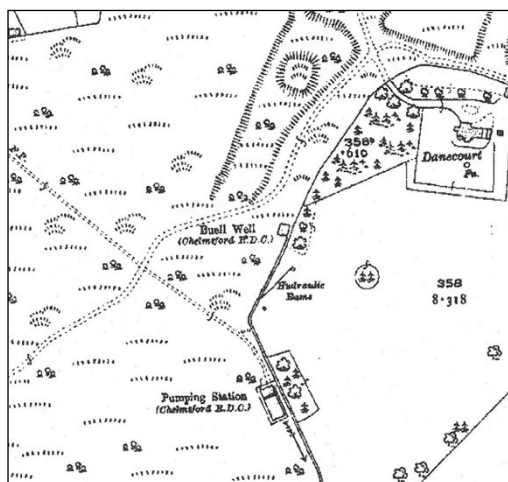
In 1891 water from the spring was raised by self-acting ram to a tank on Danbury Hill, and, by 1900, water from this well was being supplied to communities as far away as Battlesbridge and Wickford. Reservoirs were provided to store water. In 1911 the reservoirs supplied water to a population of about 4,000. The pumps and reservoirs became redundant in 1936 and were finally demolished in 1962. All that now remains of them are the foundations and odd pieces of pipework.

The spring is on land owned by the National Trust and adjacent to the extensive disused gravel pits on Danbury Common. Access is available at all times.

References

WALLIS, R. & MUSSON, J. 1995. *Danbury and Lingwood Commons (booklet).* National Trust Enterprises Ltd. Page 10.

WHITAKER, W. & THRESH, J.C. 1916. *The water supply of Essex from underground sources. Memoir of the Geological Survey of Great Britain. HMSO. Pages 76-77*



Extract from 1914-1924 Ordnance Survey Map showing Buell Spring and the pumping station



Photo G Lucy



Buell Spring flowing. Photo Ros Mercer November 2024



Area of Source of Buell Spring. Photo Ros Mercer November 2024