

# LOCAL GEOLOGICAL SITES

## CASTLE POINT DISTRICT



### Cpt PG3 Hadleigh Park

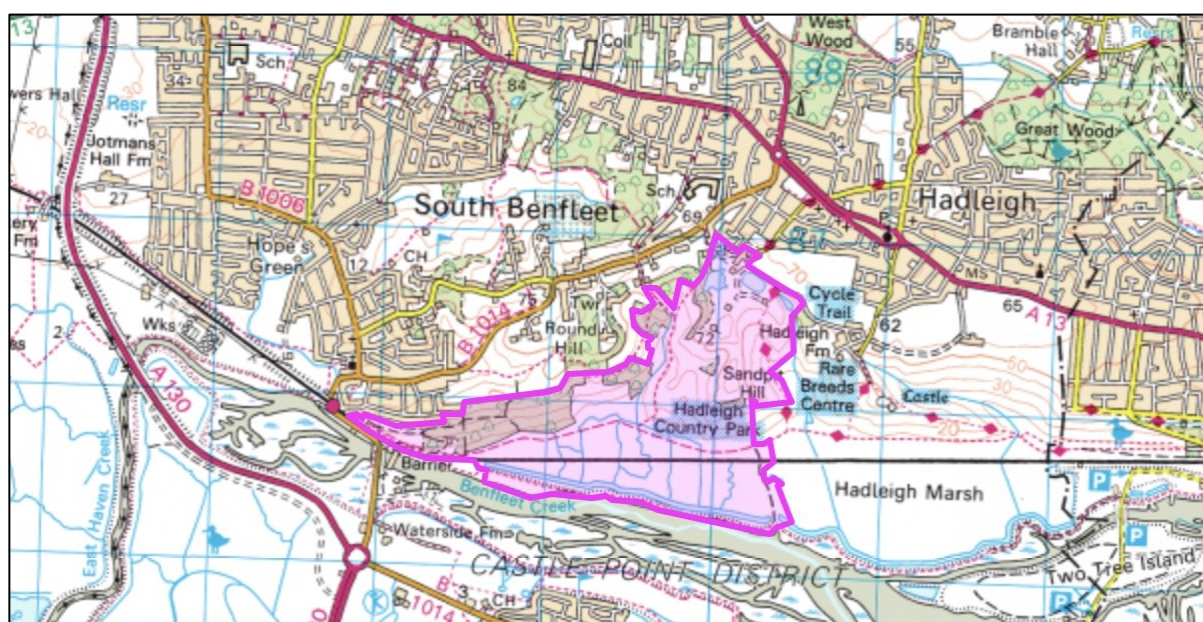
**Site location:** ECC Country Park, south of A13 from Hadleigh

**Grid Reference:** TQ 800864

**Status:** Open to the public during daylight hours

#### **Summary of the geological interest:**

Hadleigh Park has landscape features of geological interest with disused pits that have provided information about the underlying geology. A disused brick pit in the park (TQ 7998 8641) provides a publicly accessible section through the Bagshot Sand and is the best exposure of this formation in Essex. The section is provided with an interpretive board giving information about the geology of the park and the environment 50 million years ago when these sands were deposited. A full colour geological trail guide to the park has been produced by GeoEssex and is available from the park office.



**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***

Situated only a short distance west of the castle, Hadleigh Castle Country Park offers some of the best views in Essex. The hilly landscape of the park consists of London Clay overlain by the sandy clay of the Claygate Beds which in turn passes up into Bagshot Sand on the highest ground. These rocks were laid down when Essex was submerged beneath a subtropical sea about 50 million years ago.

From the car park a track leads downhill past a large fishing lake on the left which is part of the country park but not open to the public. It has a good vertical section through the Bagshot Sand (TQ 7992 8676) which can be visited by appointment. The lake was originally a pit serving an extensive brickworks that was in existence during the first half of the twentieth century and some of the buildings of the former brickworks can still be seen. The steep slopes of the old pit are much disturbed by badgers which have a liking for these sandy deposits.

From here the path continues south to the main part of the country park which is a valley flanked by the steep slopes of Round Hill to the west and Sandpit Hill to the east. Both Round Hill and Sandpit Hill are capped by Bagshot Sand. Further on, the path continues down to grazing marsh, sea wall, and a narrow strip of saltmarsh alongside Benfleet Creek. There are meanders and oxbow lakes in Benfleet Creek.

The steep ground hereabouts is prone to extensive landslips. This is particularly evident on the east side of Sandpit Hill (on land owned by the Salvation Army) where successive rotational slips have created a series of sloping terraces separated by small cliffs or scarps. The scarps provide glimpses of the underlying geology with sticky clay at the bottom of the hill and sand at the top, providing a good illustration of the shallowing of the London Clay Sea.

The best exposure of Bagshot Sand in the park is situated in an old brickworks pit on the side of Sandpit Hill and is publicly accessible by a gate in the fence (TQ 7998 8641). It is an excellent vertical section of yellow sand capped by dark earth with some pebbles. The section is dug into a series of delta and near-coastal sands. These are of egg-timer quality, being of very well sorted, 0.1mm, angular quartz grains. The soil at the top of the section contains flint pebbles and chert fragments. These are derived by soil creep from gravel beds higher up in Hadleigh. The chert is from the Lower Greensand of Kent; it was brought to this area by the ancestral river Medway.



*The exposure of Bagshot Sand  
on the side of Sandpit Hill.  
Photo: Ros Mercer, 2017.*