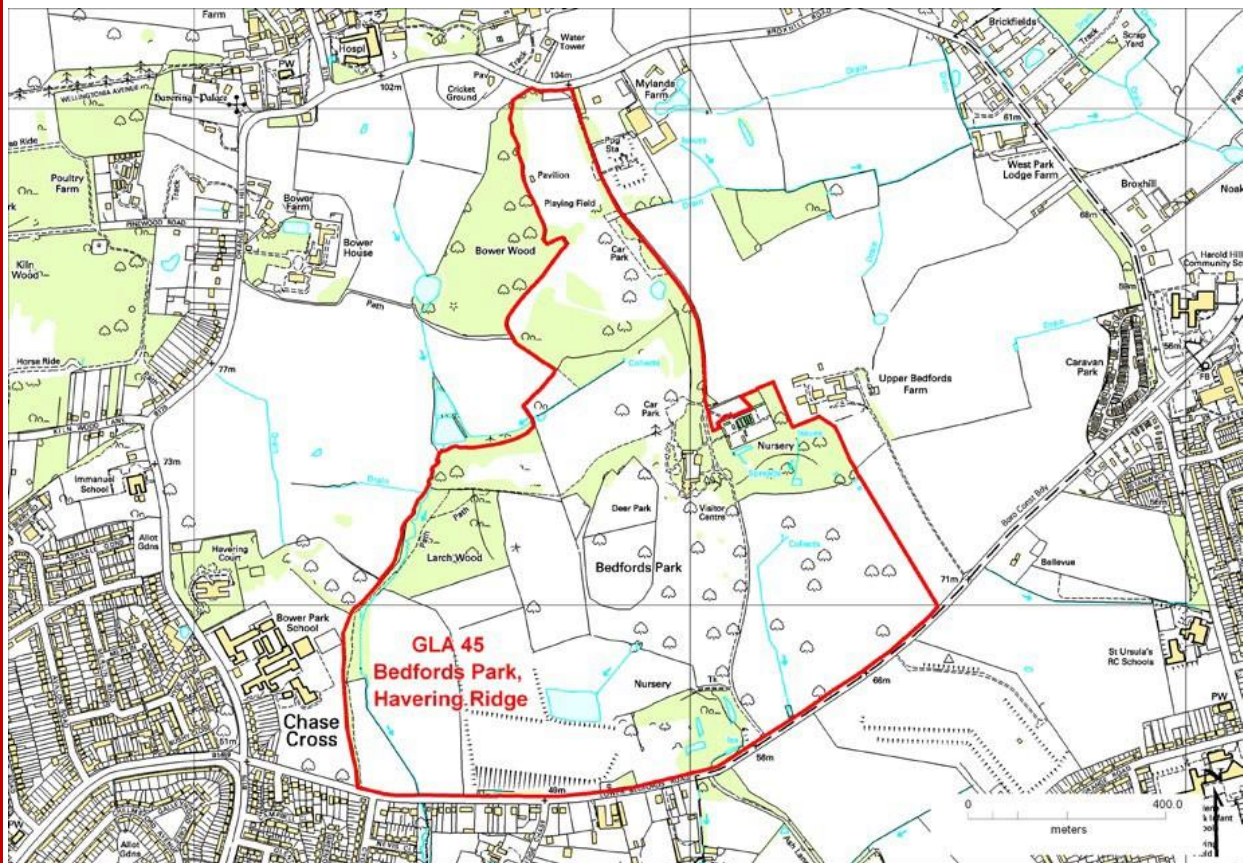


GLA 45 Bedfords Park, Havering Ridge

Grid Reference Park entrance TQ 517 930 Visitor Centre TQ 519 922	Site Type: south-facing aspect of natural ridge
Site Area (hectares): 86.82 acres	Current use: Recreational Land with Visitor Centre
Site ownership: London Borough of Havering	Borough: London Borough of Havering
Field surveyors: Diana Clements/Peter Collins	Date: June 2011
Current geological designation: RIGS	Other designation: LNR; Metropolitan SIN(C(Bedfords Park)); Green Flag status
Site Map	OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Pleistocene	Rock unit: Lowestoft Formation, Albion Glacigenic Group
Rock Type:	Details: Chalky till, together with outwash sands and gravels, silts and clays. The till is characterised by its chalk and flint content
Time Unit: Quaternary	Rock unit: Stanmore Gravel Formation, Crag Group
Rock Type:	Details: Gravel & sand, clayey near base. Contains quartzite & Lower Greensand chert (see GLA 18 for full details of clast analysis).
Time Unit: Eocene	Rock Unit: Bagshot Sand Formation
Rock Type: iron-rich sand	Details: predominantly fine sand showing stratification and locally iron rich. Pebble stringers reported but none seen
Time Unit: Eocene	Rock Unit: London Clay Formation and Claygate member, Thames Group
Rock Type: Clay, silt, sand	Details: Fine, sandy, silty clay/ clayey silt, clay (sandier near top).

Site Description

Havering Ridge displays five different lithologies and so is an excellent location for studying the geology of London and Bedfords Park is the best place to study the geomorphology. Essex Wildlife Trust runs a Visitor Centre where an interactive computer terminal describes the various units and they also publish a Trail Guide. With some small detours this could provide the basis for a parallel Geotrail. The glacial erratic boulder (probably from the Whin Sill) discovered in the quarry extracting Black Park Gravels at Mark's Warren Farm (GLA 37) is on display at the Visitor Centre to add to the geological interest. The Visitor

<p>Centre is situated at over 90 m and affords spectacular views over Canary Wharf to Shooters Hill on the south side of the Thames and beyond. The entrance is at the top of Havering Ridge at 90 m where there are more extensive outcrops of Stanmore Gravels extending through Havering-atte-Bower to Havering Park. There is potential for identifying the different lithologies from clues in the landscape – spring lines, vegetation, small exposures. Exposures are otherwise a bit difficult to find unless excavations were to be made.</p>		
Assessment of Site Value		
Geodiversity topic: lithostratigraphy, sedimentology; geomorphology.		
Access and Safety		
Aspect	Description	
Safety of access	There is a car park and public access to Bedfords Park during opening times (dawn to dusk). Visitor Centre open 9-5 Tuesday to Sunday, (November, December & January 9am - 4pm). Closed Christmas Day & Boxing Day. The VC includes toilets, a shop and a café.	
Safety of exposure	There are well-marked footpaths throughout the park but actual exposures are limited to temporary exposures. The Trail of c. 2½ miles follows some steepish hills which can be slippery.	
Permission to visit	Open access.	
Current condition	The park is well maintained with a range of habitats including a small overgrown quarry at the top of the hill and ponds in London Clay at the bottom. There is an excellent view over London to Shooters Hill from the Visitor Centre. In 2019, the boulder was still waiting for an explanatory plaque.	
Current conflicting activities	none	
Restricting conditions	Vegetation, limited exposures	
Nature of exposure	Natural hill showing range of rock units.	
Culture, Heritage & Economic		
Aspect	Description	Rating
Historic, archaeological & literary associations	Deer park acts as a reminder that this was a royal hunting ground from 11 th to 16 th centuries. The Visitor Centre sells copies of the Trail Guide and other local information	3
Aesthetic landscape	Footpaths through woods and meadows and around ponds used by local community; good views over London	9
History of Earth Sciences	unknown	4
Economic geology	Small quarry above car park used for sand or gravel (?Stanmore or Bagshot)	4
GeoScientific Merit		
Geomorphology	Part of the Havering Ridge with sloping landscape to the south and ponds within the London Clay at the bottom of the Hill.	6
Sedimentology	Observations were not made except for the London Clay at the lowest point in the park where a pond is situated. The clay exposed around the perimeter is thick and sticky and is iron-stained.	4
Palaeontology	None recorded	
Igneous/mineral/ Metamorphic Geology	The outside area of the Visitor Centre displays the 'Whin Sill' boulder from the Black Park Gravel at Mark's Warren Quarry down the hill. If correctly identified, this will be the furthest south such boulders have travelled	8
Structural Geology		
Lithostratigraphy	Important as the area contains five distinct rock units	6
Potential use	education; Geotrail to parallel Trail Guide.	
Fragility	Natural overgrowing	
Current Site Value		
Community	Valuable woodland and green space.	9
Education	Geology featured in Visitor Centre; the centre provides plenty of	9

	potential for geological education	
Geodiversity value		
RIGS: This is the best location for such a variety of rock types. The installation of the glacial erratic ('Whin Sill') boulder gives it an added attraction	6	
GLA 45 Bedfords Park, Havering Ridge		
		
Exposure of London Clay around lake. Photo: Diana Clements		