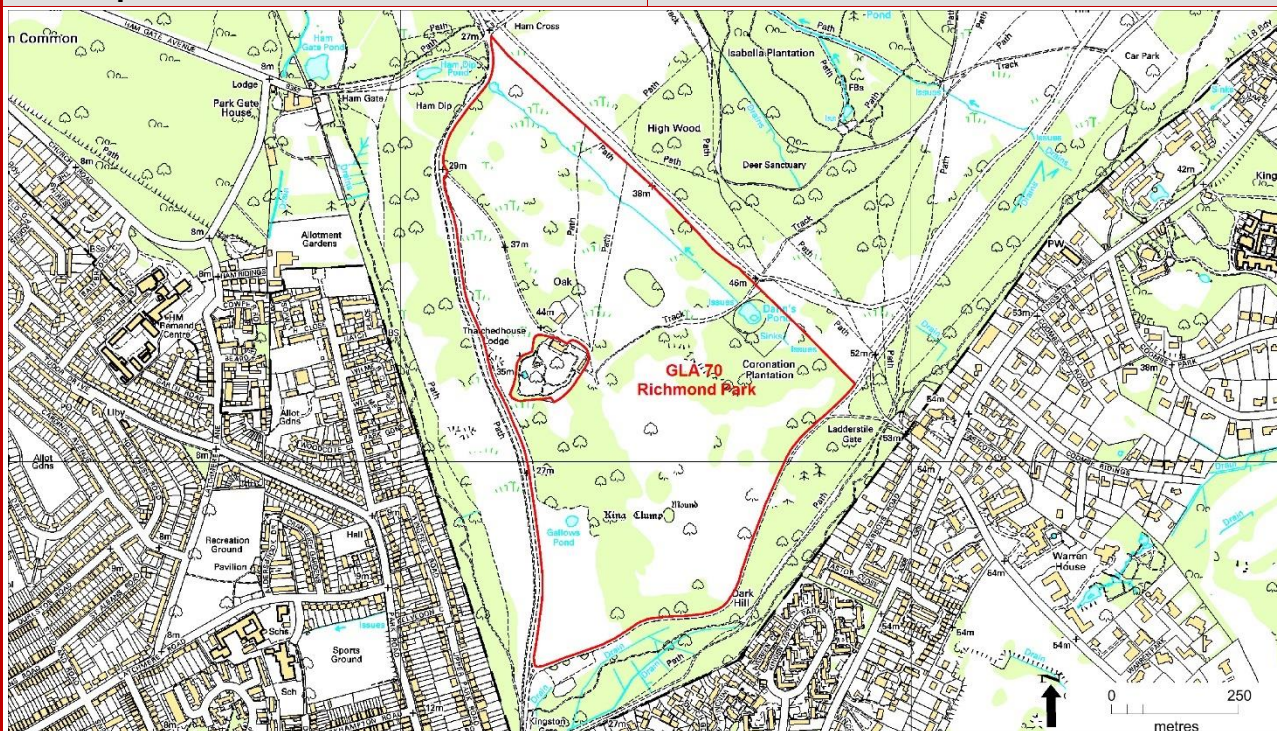


GLA 70 Richmond Park

Grid Reference: TQ 194 706 (Kingston Gate car park)	Site Type: Natural exposures within large public park
Site Area (hectares): 50.76	Current use: Recreational
Site ownership: The Royal Parks	Borough: London Borough of Richmond Upon Thames
Field surveyors: Peter Collins, Diana Clements Revisited: Diana Clements, Laurie Baker, Paul Rainey	Date: March 2014 Date: May 2017
Current geological designation: Recommended by Partnership as a LIGS	Other designation: SSSI (biological); European SAC (UK0030246); NNR and Metropolitan SINC (Richmond Park)

Site Map

OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Pleistocene	Rock Unit: Thames Valley Formation, Black Park Gravel Member
Rock Type: sand & gravel	Details: Sand and gravel, with possible lenses of silt, clay or peat.
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.

Site Description

Richmond Park includes three predominant lithologies: London Clay at the base, with the more sandy Claygate Member above and, on the highest ground, the Black Park Gravel, the oldest of the Thames Gravels following the retreat of the Anglian Ice Sheet. An area of the park has been chosen where all three of these lithologies are present. It is in the extreme south west between Ham Gate, Kingston Gate and Ladderstile Gate, joined into a more or less rectangular shape by the track leading to Ham Cross. A fault crossing NE/SW is marked by the line of the gully from Ham Gate that crosses the main N/S road and continues beyond to Pen Ponds (outside the designated area). The block to the south is downthrown with respect to the north as no Claygate Member underlie the Black Park Gravel in the northern part of the park.

Actual exposures are rare but to the west of Thatched House Lodge and between there and the road there is a slipped area (TQ 1905 7115) where Claygate Member are exposed. From the ridge above these are seen to be rotated slips bringing the Claygate Member to a lower level than the *in situ* outcrop, On the climb up the slope from this exposure to the track leading from the north up to Thatched House Lodge there are exposed areas of *in situ* Claygate Member in the gullies. They are covered by a surface blanket of clasts eroded from the Black Park Gravel and it is probable that the top half metre of gravel is *in situ*. Any

temporary exposures above 50m should expose *in situ* Black Park Gravel (e.g. at Kings Clump). The BGS map shows a small patch of worked ground on the NE edge of this plateau. Sand was observed on the slope (<45m) up to Kings Clump, just west of the *Mound* at c. TQ 1945 7090 which is a little low for the mapped area of Black Park Gravel. The adjacent Wimbledon Common shows Bagshot Formation above the Claygate Member and underlying the Black Park Gravel in the most southerly area. It is tempting to think this small exposure could be Bagshot Sand but more investigation would be required to prove it. The probability is that it is a sandy facies at the top of the Claygate Member.

The Capital Ring runs through Richmond Park, around the high ground at Pembroke Lodge further north than the designated area and crosses the fault at Pen Ponds. A Geotrail through the designated area is available on the LGP website: www.londongeopartnership.org.uk/geotrails.

Grist C.I., 1917. Excursion to Richmond Park, Kingston Hill and Wimbledon Common, May 19th, 1917 (Proc. Geol. Assoc. Vol. 28 Part 2). Accessed 10/2019.

Assessment of Site Value

Geodiversity topic: lithostratigraphy, geomorphology.

Access and Safety

Aspect	Description
Road access and parking	Parking is available in designated car parks around Richmond Park at a charge. The car park at Kingston Gate is recommended for the designated area.
Safety of access	Footpaths, some rough with slopes and wet/slippery areas on areas of best exposure
Safety of exposure	Evidence of slippage, vegetation mostly kept down by deer
Permission to visit	Open access during daylight hours
Current condition	Well maintained by the Royal Parks
Current conflicting activities	Deer erosion could be an asset
Restricting conditions	Lack of exposure; permission to dig may not be granted.
Nature of exposure	Patchy exposure on path and where slipped

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	Richmond Park generally: possible barrows, hand axes found (Wymer Collection), a strategic historic view to St. Paul's	7
Aesthetic landscape	Welcome large area of open space in urban setting. Deer an additional attraction. Much used.	8
History of Earth Sciences	Needs researching, particularly borehole data and hand axes	
Economic geology	Localized digging of gravels and Claygate Member	2

GeoScientific Merit

Geomorphology	Relationship of geology to topography; comparisons with neighbouring Wimbledon Common and Putney Heath. NB GLA 25 Putney Heath is at the north end of Wimbledon Common	4
Sedimentology	Encompasses a variety of gravel, sand, silt & clay	4
Palaeontology	Handaxes found in the Black Park Gravel are in the Wymer Collection Nos. 2011 & W242	2
Igneous/mineral/ Metamorphic Geology		
Structural Geology	Fault runs through centre controlling level of underlying Eocene deposits (north edge of designated area)	2
Lithostratigraphy	Three strata: London Clay and Claygate Member and overlying them, the much younger Black Park Gravel	4
Potential use	Possible research in respect of levels of different lithologies; potential for Geotrail (close to Capital Ring)	
Fragility	Temporary exposures can easily become overgrown	

Current Site Value		
Community	Much used park crossed by the Capital Ring. Catering facilities at Pembroke Lodge (north end) and a small shop outside the Lodge selling books etc. but no potential for a geology display.	10
Education	Geotrail is available on www.londongeopartnership.org.uk/geotrails	6
Geodiversity value		
Recommended by Partnership as a LIGS: On account of three different lithologies; a Geotrail is available. Wimbledon Common (GLA 78 in Merton) and Putney Heath (GLA 25 in Wandsworth) on the other side of Beverley Brook have similar lithology.		4
GLA 70 Richmond Park		
		
Rotational slip beneath Thatched House Lodge	Exposure probably Claygate Member at top of rotational slip	
		
Exposures up to track leading N from Thatched House Lodge	Surface gravel (mostly eroded) underlain by Claygate Member	
Photos Diana Clements 2014		