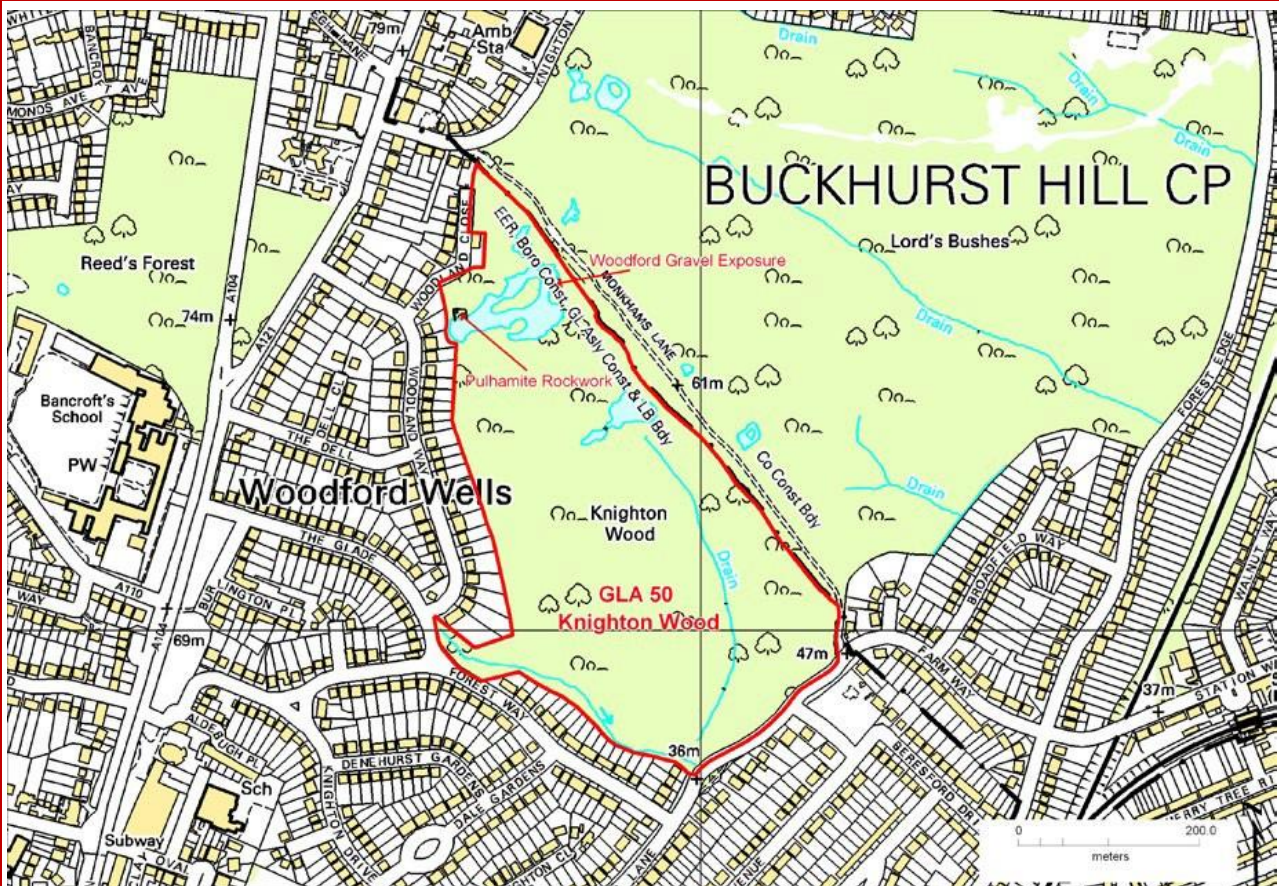


GLA 50 Knighton Wood

Grid Reference: TQ 413 935	Site Type: Exposures of Woodford Gravel in public park
Site Area (hectares): 14.92	Current use: Open access public space
Site ownership: Part of Epping Forest, managed by the City of London Corporation.	Borough: London Borough of Redbridge, with the adjoining Lord's Bushes in Essex.
Field surveyor: Diana Clements, Peter Collins	Date: May 2011
Current geological designation: RIGS	Other designation: Part of Epping Forest SAC; SSSI; Metropolitan SINC (Epping Forest North)
Site Map	OS Topography © Crown Copyright



Stratigraphy and Rock Types

Time Unit: Pleistocene	Rock Unit: Woodford Gravel Member, Sudbury Formation
Rock Type: Sand and gravel	Details: Sand and gravel, locally with lenses of silt, clay or peat and organic material.
Time Unit: Eocene	Rock Unit: London Clay Formation, Thames Group
Rock Type: Clay, silt, sand	Details: Fine, sandy, silty clay/ clayey silt.

Site Description

Pleistocene/pre-Anglian Woodford Gravel overlies Eocene London Clay Formation with the junction between the two covered by 'Head' (run off from the gravels). The Woodford Gravel is well-exposed around the edge of Knighton Lake, particularly on the east side, close to the path. Junction with London Clay not seen.

A good example of Pulhamite (manufactured rock face) can be seen at the western end of the Lake.

Assessment of Site Value

Geodiversity topic: Lithostratigraphy; sedimentology; geomorphology.

Access and Safety		
Aspect	Description	
Safety of access	Car park in Monkham's Lane, off Knighton Lane. A well-maintained path runs directly to Knighton Lake. Nearest station is Roding Valley on Central Line.	
Safety of exposure	Exposure in public woodland at the edge of a lake – observe general safety in woodlands and slope towards water.	
Permission to visit	Open access.	
Current condition	Good. Pulhamite needs some maintenance and vegetation clearing	
Current conflicting activities	None.	
Restricting conditions	High water levels may restrict viewing. People erosion will probably protect from overgrowth and good management by CoL from dumping, but the need for geoconservation should be communicated to CoL	
Nature of exposure	The Woodford Gravel is well-exposed around the edge of Knighton Lake, particularly on the east side, close to the path.	
Culture, Heritage & Economic		
Aspect	Description	Rating
Historic, archaeological & literary associations	Pulhamite Rock face (none known for Woodford Gravel)	4
Aesthetic landscape	Pleasant open space with easy public access. 'Maintain Rock Exposure' is mentioned in the CoL Management Plan for 2004-10. This may refer to the Pulhamite at the other end of the lake.	8
History of Earth Sciences	No specific reference to Knighton Wood known.	2
Economic geology	Evidence of quarrying in 1883 (CoL Management Plan 2004-10). Several pits are located in the adjacent Lord's Bushes	5
GeoScientific Merit		
Geomorphology	Distribution of exposures of Woodford Gravel used to determine location relative to the pre-diversionary Thames and its tributaries flowing over the current London Basin from the Weald. Rests on top of London Clay hillocks 50 – 80 m OD (Ellison et al. 2004 cite adjacent Lords Bushes in Essex, as example)	6
Sedimentology	Research into composition of the gravels could give more information on the provenance of the gravels and therefore the river that deposited them. Woodford Gravel covers a restricted area and includes clasts from the Weald.	6
Palaeontology	None.	0
Igneous / mineral / metamorphic geology	None.	0
Structural Geology	None.	0
Lithostratigraphy	One of several exposures of Woodford Gravel in the area and probably the best within Greater London (type section from borehole data)	6
Potential use	Research; further education; on-site interpretation.	
Fragility	Dumping; natural overgrowing; weathering/erosion.	
Current Site Value		
Community	Site passed on a daily basis	10
Education		6
Geodiversity value		
RIGS	Woodford Gravel is described from borehole data and is of limited extent. This would appear to be the best exposure in the area although there are others not far away at Lord's Bushes (Essex) and within Epping Forest.	6

GLA 50 Knighton Woods

Exposure of Woodford Gravel on the east perimeter of Knighton Lake. Photo: Diana Clements