

GLA 68 Bedfont Lakes	
Grid Reference: TQ 076 724	Site Type: Former gravel quarries
Site Area (hectares): 23.82	Current use: Recreation Country Park with Fishing Lake and a number of Keep Fit routes through the park.
Site ownership: London Borough of Hounslow, Managed by Carillion	Borough: London Borough of Hounslow
Field surveyor: Barbara Silva/Diana Clements Revisited: Barbara Silva	Date: June 2015 Date: 2018
Current geological designation: Recommended by Partnership as a LIGS	Other designation: LNR; Metropolitan SINC (Bedfont Lakes Country Park); Green Flag status.
Site Map	OS Topography © Crown Copyright
<p>The site map shows the geographical layout of Bedfont Lakes Country Park. A red boundary outlines the site area. Key features include Ascot Road to the north, a track, and several paths. Landmarks such as the Millennium Monument View Point, a fishing lake, and a car park with an information centre are marked. A scale bar indicates 0 to 150 metres, and a north arrow is present. The map also shows surrounding roads like Clockrose Lane and various buildings and structures.</p>	
Stratigraphy and Rock Types	
Time Unit: Devensian	Rock Unit: Kempton Park Gravel Member, Maidenhead Formation
Rock Type: Sand and gravel	Details: Sand and gravel, locally with lenses of silt, clay or peat
Site Description	
<p>Bedfont Lakes Country Park formed part of a large orchard that supplied Covent Garden market until the 1920s. The area was then worked for sand and gravel until the 1950s and used as a refuse site until 1973 leaving a mixture of polluted lakes, wasteland and abandoned machinery. To make the former landfill areas safe, two million cubic metres of soil and refuse were relocated. Much of the soil and landfill was used to form the hills running through the middle of North Side, creating one of the highest points in the borough, Monolith Hill (Millennium Monument View Point), at 29m above sea level is the highest point in Hounslow. From the Millennium Monolith at the top there are views south to the North Downs and east to Wembley Stadium and the Shard. The monolith is made of a 3-ton block of York Sandstone, atop of which is a circular brass disc showing the direction and distances to many cities and landmarks of interest within the borough and beyond. The existing lakes were extended and footpaths were laid out around the site. The park, opened to the public in July 1995, is the second largest open space to be created in London in the 20th century. Since then it has won several national awards for its design and management, which include the</p>	

Green Flag Award, Millennium Marque and London in Bloom trophies.

The Park, although heavily affected by quarrying and subsequently modified by landfill, was originally underlain by the Kempton Park Gravel and the Lakes are the former quarries. This is interesting geologically as *London's foundations* has not previously included the Kempton Park Gravel. It is one of the youngest of the Thames 'Staircase' of gravels – comprising the 'upper floodplain terrace – and is located at the base of the staircase close to c.16m OD. Bridgland (1994) suggests that this gravel was deposited during the early to mid-Devensian, between 122-70,000 years BP (MIS 5d-2). Gibbard (1985) suggests that the aggradation probably began at 45-44,000 BP and ended at 32-30,000 BP, i.e. the unit is of Middle Devensian age.

Since the park opened in 1995, the vegetation has flourished and exposures are sparse. The best were seen round the Fishing Lake (e.g. at TQ 076 722) where fishermen have kept the vegetation down by walking to the platforms created for them. There is a path close to the lake in parts. Other exposures were seen on a bund that separates the west side of the Fishing Lake from Clockhouse Lane. This was probably placed there when the quarry was in operation as is common practice. Temporary exposures such as burrows, excavations and an old upturned tree hollow provided views. None of the gravel seen showed any stratification and is probably all ex situ. The gravel seen is predominantly flint but some quartzite and quartz was observed. Cobble-size clasts were also commonly observed.

Assessment of Site Value

Geodiversity topic: Lithostratigraphy; sedimentology.

Access and Safety



Aspect	Description
Safety of access	Best access via Clockhouse Lane (by Information Centre) where there is also a car park (TQ 076 724). Public access Bus H46 to NW tip of the park. Open during daylight hours. Most paths suitable for pushing buggies/wheelchairs
Safety of exposure	Small exposures easily overgrown. Best seen around Fishing Lake where frequent access to lakeside
Permission to visit	Open Access. Permission would be required to dig
Current condition	Well maintained by Carillion Services for LB Hounslow. Snack bars at both car parks. Vegetation well-established after initial opening as public open space in 1995
Current conflicting activities	Fishermen are an asset! Possible wildlife conflicts
Restricting conditions	Digging would not normally be permitted
Nature of exposure	Ex gravel pits with very little exposure except rare glimpses around Fishing Lake and on bund separating area from Clockhouse Lane. Elsewhere landfill has been piled to make a pleasantly hilly topography including the 29m high Monument Hill with fine views

Culture, Heritage & Economic

Aspect	Description	Rating
Historic, archaeological & literary associations	Needs research	
Aesthetic landscape	Well used park, wonderful view point and several awards	9
History of Earth Sciences	In relation to Thames Terrace	4
Economic geology	Former Gravel extraction	8

GeoScientific Merit

Geomorphology	Thames Terrace at 16m OD related to MIS 5e-3c. 100,000 years to between 32-30,000 years old (note MIS 5e-2 changed to MIS 5e-3).	4
Sedimentology	Predominantly flint (some quartzite and quartz) rounded cobble-size clasts of both seen.	2
Palaeontology	None described from Bedfont Lakes but MIS 5e is uniquely associated with Hippo bones	0
Igneous/mineral/ Metamorphic Geology	None	0
Structural Geology		0
Lithostratigraphy	Kempton Park Gravel (First GLA site recorded).	4

Potential use	Educational with school groups / families visiting the Information Centre	
Fragility	Overgrown by moss or vegetation	
Current Site Value		
Community	If the geological designation could be included in the management plan this could lead to inclusion in some outreach.	8
Education	Aspects of the gravel could be included in some of the educational projects already on offer by showing small exposure of gravel on walks and discussing what the clasts are made of and the environment of deposition and subsequent extraction and landscaping.	6
Geodiversity value		
Recommended by Partnership as a LIGS: Worthy of LIGS status as Kempton Park Gravel is not yet represented in <i>London's Foundations</i> . Although exposure is poor there is enough around lake edge to see the nature of the gravel.		4
GLA 68 Bedfont Lakes		
		
	note cobbles c.10-15 cm	
Photos: Diana Clements, June 2015		