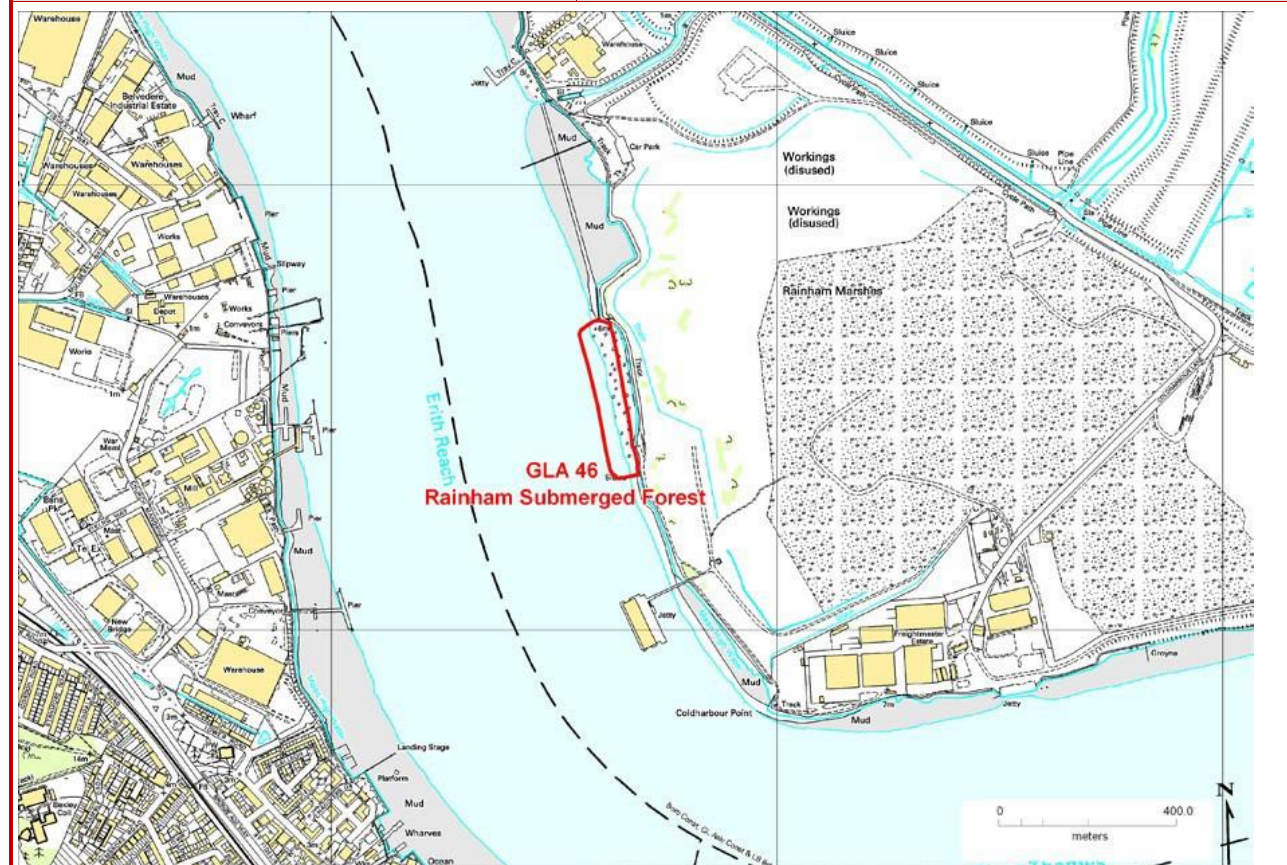


**GLA 46 Rainham submerged forest**

Grid Reference: TQ 516 795	Site Type: Natural foreshore exposure of submerged forest
Site Area (hectares): 2.29	Current use: Foreshore exposure adjacent to London Loop Thames footpath
Site ownership: Port of London Authority	Borough: London Borough of Havering
Field surveyor: Diana Clements, Peter Collins, Bill George	Date: July 2011
Current geological designation: RIGS	Other designation: Metropolitan SINC (River Thames and tidal tributaries)

**Site Map** OS Topography © Crown Copyright



**Stratigraphy and Rock Types**

Time Unit: Holocene	Rock Unit: Alluvium & peat
Rock Type: Alluvium	Details: peat horizons at varying horizons

**Site Description**


This is the best place on the north bank of the Thames Estuary for viewing the Neolithic peat exposures and submerged forest. At low tides whole tree trunks are revealed amongst the root balls. Within the RSPB site, during drainage maintenance logs from the forest bed are found, possibly older than those occurring on the foreshore – one is on permanent display on the northern side of the RSPB site – unfortunately the RSPB charge to enter the site.

**Assessment of Site Value**

**Geodiversity topic:** Holocene processes in the Thames.

**Access and Safety**

Aspect	Description
Safety of access	Can be viewed from the adjacent Thames Walk footpath, part of the London Loop but access to the foreshore down the steep bank is slippery and awkward and should only be attempted on a falling tide. For safety it is inadvisable to access the foreshore alone.
	The site is only visible at low tide and in future may not be visible at all if it is

Safety of exposure	covered in sediment. Storms could potentially damage the exposure as could any development along this stretch of the Thames	
Permission to visit	Open access to the path and not required for the foreshore	
Current condition	Good except for access to the foreshore	
Current conflicting activities	None observed	
Restricting conditions	High tide and bad weather	
Nature of exposure	Natural foreshore exposure of Neolithic submerged forest	
<b>Culture, Heritage &amp; Economic</b>		
<b>Aspect</b>	<b>Description</b>	<b>Rating</b>
Historic, archaeological & literary associations	Submerged forest on the north bank of the Thames is referred to in Bates & Barham, 1995; Sidell et al., 2001; Meddens & Beasley, 1990.	7
Aesthetic landscape	Visible at low tide from London Loop foot and cycle route.	7
History of Earth Sciences	Dereham, 1712	4
Economic geology	None	0
<b>GeoScientific Merit</b>		
Geomorphology	Record of changing sea levels in the Thames Estuary	6
Sedimentology	Intercalated peats, organic muds and alluvial and estuarine clays	4
Palaeontology	Probably several species of trees and shrubs as at Erith	4
Igneous/mineral/ Metamorphic Geology	None.	0
Structural Geology	None.	0
Lithostratigraphy	Holocene alluvium and associated peat horizons	4
Potential use	This site warrants further research; potential for further education and on-site interpretation (possible London Loop Geotrail)	
Fragility	Storms; human engineering of Thames estuary; SL rise	
<b>Current Site Value</b>		
Community	Valuable, as can be seen from cycle route.	8
Education	Excellent evidence for teaching about global warming and sea-level rise	6
<b>Geodiversity value</b>		
Potential RIGS: Best example of Neolithic submerged forest on north bank of the Thames		5
<b>GLA 46 Rainham Submerged Forest</b>		
		
Photo: Diana Clements, July 2011		