Table 1. Quaternary epochs and the Marine Isotope Stage framework for the Lea Valley study area.

				Traditional stage		
Epoch	Age kBP Present-	MI Stage		(Britain)	Climate Warm — full interglacial	Palaeogeographical events
Holocene	10,000	1	Alluvium	Flandrian	Ü	
	25,000	2	Buried channel		Mainly cold; coldest in MI Stage 2 when Britain depopulated and maximum advance	
	50,000	3	Shepperton	Devensian	of Devensian ice sheets; occasional short- lived periods of relative warmth	
Late Pleistocene	70,000	4	* •		("interstadials"), and more prolonged warmth in MI Stage 3.	
	110,000	5a-d	Kempton Park Gravel			
	125,000	5e		Ipswichian	Warm — full interglacial	
	190,000	6			Alternating periods of cold and warmth; recently recognised that this period	
	240,000	7	Taplow Gravel	Wolstonian complex	includes more than one glacial-interglacial cycle; changes in faunal evolution and	
	300,000	8	\		assemblage associations through the period help distinguish its different stages.	Thames flowing in present course. Study are part of north bank tributaries
	340,000	9				flowing southwards
N 40 -1 -11 -	380,000	10				
Middle Pleistocene	425,000	11		Hoxnian	Warm — full interglacial	
	480,000	12	Lowestoft Formation	Anglian	Cold — maximum extent southward of glacial ice in Britain; may incorporate interstadials that have been confused with Cromerian complex interglacials	Major glaciation: Thames blocked by ice in Vale of St.Albans: major drainage modification
	620,000	13–16	(Dollis Hill Gravel – MIS 14)	Cromerian complex and Beestonian	Cycles of cold and warmth; still poorly understood due to obliteration of sediments by subsequent events	Thames flowing to NE through St.Albans. Study areas part of south bank tributaries flowing northwards
	780,000	17–19	Kesgrave Formation	glaciation		
Early Pleistocene	1,800,000	20–64		₩	Cycles of cool and warn, but generally not sufficiently cold for glaciation in Britain	

Table 2. Geomorphic elements and evolution, depositional environments, post-depositional factors and archaeological preservation issues for the main lithostratigraphic elements in the Lea Valley study area.

Geomorphic element	Depositional environment type	Geomorphic evolution	Post depositional environmental factors	Archaeological preservation issues
Kesgrave Formation (MIS 13-?22)	High energy river systems with non- cohesive channel banks with potential for lower energy river systems with cohesive channel banks and overbank flooding.	coarse grained sequences (sands/gravels). Sedimentation within braided systems resulting in stacked sequences of cut/fill form. Dominant	incision and downcutting	In situ and reworked (through terrace systems) Lower Palaeolithic artefacts within main sediment body. Incision may lead to dewatering of sediments and through time decalcification of deposits lowering palaeoenvironmental potential. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
Lowestoft Formation (MIS 12)	Glacial conditions with major ice bodies in sub-glacial or ice-sheet margin situations. High energy water flow and chaotic moraine dumps.	Till forming in ice marginal conditions during ice advance and sub-glacially during ice retreat phases. Localised lake formation in ice dammed locations.	Incised by south flowing tributaries of the diverted Thames. Weathering and colluviation of remnants.	Reworked Lower Palaeolithic artefacts within main sediment body. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
Taplow Gravel (MIS 6-8)	High energy river systems with non- cohesive channel banks with potential for lower energy river systems with cohesive channel banks and overbank flooding.			In situ and reworked (through terrace systems) Lower Palaeolithic and Middle Palaeolithic artefacts. Incision may lead to dewatering of sediments and through time decalcification of deposits lowering palaeoenvironmental potential. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
Kempton Park Gravel (MIS 4-6)	High energy river systems with non- cohesive channel banks with potential for lower energy river systems with cohesive channel banks and overbank flooding.		forms in post-diversion Thames	In situ and reworked (through terrace systems) Middle Palaeolithic artefacts (also occasional reworked Lower Palaeolithic artefacts). Incision may lead to dewatering of sediments and through time decalcification of deposits lowering palaeoenvironmental potential. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date. Possible presence of rafts of sediments (including peats) resulting from incorporation in floating ice (Lea Valley Arctic Beds).

Shepperton Gravel (MIS 2)	High energy river systems with non- cohesive channel banks.		accumulation of Holocene	Predominantly reworked Lower and Middle Palaeolithic artefacts. Surface of deposits may have late Palaeolithic material resting on surface. Possible presence of rafts of sediments (including peats) resulting from incorporation in floating ice (Lea Valley Arctic Beds).
Holocene alluvium (MIS 1)		Evolution of late glacial braided to	water table fluctuations modify local conditions.	Range of later Prehistoric and Historical archaeological materials in situ on basal gravels or within landscape features associated with human activity. Much material may be in situ but reworking also apparent.

Table 3. Geomorphological and sediment characteristics for zones I-XIX.

Zone	Geomorphological characteristics	Sediment characteristics	Mapped sediments	Likely sequences present
Ī	Valley floor, dominated by meandering channels, canalized channels and low slope angles (<1°)	Floodplain fines (clays/silts/sands and organics) over gravels and sands. Area of deep basin like feature in gravel surface topography.	Alluvium	Alluvium of Holocene date overlying gravels of Late Devensian date (Lea Valley Gravel)
II	Valley floor, dominated by meandering channels, canalized channels and low slope angles (<1°)	Floodplain fines (clays/silts/sands and organics) over gravels and sands	Alluvium	Alluvium of Holocene date overlying gravels of Late Devensian date (Lea Valley Gravel)
III	Valley floor, dominated by meandering channels, canalized channels and low slope angles (<1°)	Floodplain fines (clays/silts/sands and organics) over gravels and sands	Alluvium	Alluvium of Holocene date overlying gravels of Late Devensian date (Lea Valley Gravel). Towards edge gravels of the Kempton Park Gravel (earlier part of Devensian) may exist beneath the alluvium
IV	Valley edge, low lying topography (<3°)	Thin veneer of fine clays- silts overlying sands and gravels	Kempton Park Gravel Formation	Much of area will consist of early to mid Devensian sand and silts over gravels but thin spreads of Holocene alluvium may also be present
V	Valley edge, low lying topography (<3°)	Thin veneer of fine clays- silts overlying sands and gravels	Kempton Park Gravel Formation	Much of area will consist of early to mid Devensian sand and silts over gravels
VI	Valley side, low lying topography (<3°)	Fine grained clays-silts.	Enfield Silt Formation	Mid to Late Devensian silt probably overlying older gravels of the Kempton Park Gravel Formation
VII	Valley side	Bedrock at surface	Bedrock (various)	Eroding bedrock
VIII	Valley side, low lying topography (<3°)	Fine grained clays-silts.	Enfield Silt Formation	Silt possibly of multi-period formation overlying gravels of the Kempton Park Gravel Formation (downslope) and Taplow Gravel Formation (upslope)
IX	Valley side	Sands and gravels	Taplow Gravel	MIS 6-4 cold stage gravels and possible warm

			Formation	interglacial silts
X	Valley side	Fine grained clays-silts.	Enfield Silt	Silt possibly of multi-period formation
			Formation	overlying gravels of the Taplow Gravel
				Formation (upslope)
XI	Valley floors in tributary valleys	Coarse gravel and sand	Alluvium	Probably late Devensian gravels beneath
		overlain by fine grained		Holocene silts. Elements of colluvium
		clay-silts		probably also present
XII	Valley tops/plateau margins	Clays with poorly sorted	Lowestoft	Mixed packages of clay dominated till, coarse
		gravels	Foramtion	gravels intermittently present. Of Anglian
				date
XIII	Valley floors in tributary valleys	Coarse gravel and sand	Alluvium	Probably late Devensian gravels beneath
		overlain by fine grained		Holocene silts. Elements of colluvium
		clay-silts		probably also present
XIV	Valley tops/plateaus	Sands and gravels	Kesgrave	Stratified sands and gravels with Pre-Anglian
			Formation	Thames deposits
XV	Valley tops/plateaus	Sands and gravels	Dollis Hill	
			Gravel	
			Formation	
XVI	Valley side	Sands and gravels	Taplow Gravel	MIS 6-4 cold stage gravels and possible warm
			Formation	interglacial silts
XVII	Valley side	Fine grained clays-silts.	Enfield Silt	Silt possibly of multi-period formation
			Formation	overlying gravels of the Kempton Park Gravel
				Formation (upslope), through the Taplow
				Gravel Formation to the Kesgrave Gravel
				Formation.
XVIII	Upper Valley side	Sand and gravel	Unknown	Possible fluvial sands and gravels
XIX	Valley floor, dominated by meandering	Floodplain fines	Alluvium	Alluvium of Holocene date overlying gravels
	channels, canalized channels and low	(clays/silts/sands and		of Late Devensian date (Lea Valley Gravel).
	slope angles (<1°). River confluence	organics) over gravels and		Towards edge gravels of the Kempton Park
	zone	sands		Gravel (earlier part of Devensian) may exist
ĺ				beneath the alluvium

Table 6. SMR/HER records by geoarchaeological zone in the Lea Valley study area.

Zone	Area (km)	Area lost	% Area lost	Nos BH	Palaeolithic	Mesolithic	Neolithic	Bronze Age	Iron Age	Prehistoric	Roman	Saxon	Medieval	Post Medieval	Mod
1	1.88	0.25	13.3	12	0	0	0	0	0	0	0	0	2	12	:
II	6.16	2.34	38	43	0	2	0	0	2	1	6	2	0	0	(
III	3.78	0.39	10.3	33	0	0	0	0	1	3	1	1	6	4	2
IV	3.42	0.01	0.3	42	0	0	0	0	1	0	2	0	2	9	(
V	2.53	0.09	1	41	0	0	1	0	0	0	2	0	0	12	(
VI	3.79	0.64	16.9	54	1	2	0	3	1	0	0	0	9	5	1
VII	13.5	0.01	0.7	54	0	0	0	0	0	0	0	0	5	9	1
VIII	2.57	0.08	3.1	26	1	1	1	4	0	2	0	0	2	11	:
IX	1.09	0.1	9.2	3	1	0	0	0	1	0	1	0	3	1	2
Χ	1.39	0	0	3	1	0	3	2	0	0	0	0	1	1	(
XI	0.18	0	0	0	0	0	0	0	0	0	0	0	0	4	(
XII	1.81	0	0	0	0	0	0	0	0	0	0	0	1	0	(
XII	0.48	0.01	2.1	2	0	0	0	0	0	0	0	0	2	0	(
XIV	4.2	0.05	1.2	8	0	0	1	0	3	2	7	0	9	16	2
XV	0.13	0.5	0	0	0	0	0	0	0	0	0	0	0	0	(
XVI	1.79	0.09	5	9	0	0	0	0	0	0	2	1	1	13	2
XVII	0.34	0.01	0	1	0	0	0	0	0	0	0	0	0	0	(
XVIII	0.07	0	0	0	0	0	0	0	0	0	0	0	0	0	(
XIX	0.85	0.2	23.5	41	0	0	0	0	0	0	0	0	0	3	2

Table 7. SMR/HER records by geoarchaeological zone in the Lea Valley study area: percentage of period types by zone.

Zone	Number of records	Palaeolithic	Mesolithic	Neolithic	Bronze Age	Iron Age	Prehistoric	Roman	Saxon	Medieval	Post- Medieval	Modern	Unknown
I	17	0	0	0	0	0	0	0	0	11.8	70.8	17.6	0
II	17	0	11.8	0	0	11.8	5.8	35.3	11.8	0	0	0	23.5
III	18	0	0	0	0	5.6	16.7	5.6	5.6	33.3	22.2	11.1	0
IV	17	0	0	0	0	5.9	0	11.8	0	11.8	52.9	0	17.6
V	15	0	0	6.7	0	0	0	13.3	0	0	80	0	0
VI	22	4.5	9.1	0	13.6	4.5	0	0	0	40.9	22.7	4.5	0
VII	33	0	0	0	0	0	0	0	0	15.2	27.3	39.4	18.2
VIII	25	4	4	4	16	0	8	0	0	8	44	12	0
IX	10	10	0	0	0	10	0	10	0	30	10	20	10
Х	8	12.5	0	37.5	25	0	0	0	0	12.5	12.5	0	0
ΧI	5	0	0	0	0	0	0	0	0	0	80	0	20
XII	1	0	0	0	0	0	0	0	0	100	0	0	0
XIII	2	0	0	0	0	0	0	0	0	100	0	0	0
XIV	43	0	0	2.3	0	7	4.7	16.3	0	20.9	37.2	4.7	7
XV	0	0	0	0	0	0	0	0	0	0	0	0	0
XVI	19	0	0	0	0	0	0	10.5	5.3	5.3	68.4	10.5	0
XVII	0	0	0	0	0	0	0	0	0	0	0	0	0
XVIII	0	0	0	0	0	0	0	0	0	0	0	0	0
XIX	6	0	0	0	0	0	0	0	0	0	50	33.3	16.7

Table 8. Density of sites by period zone for the Lea Valley study area.

					Bronze						Post		
Zone	Area	Palaeolithic	Mesolithic	Neolithic	Age	Iron Age	Prehistoric	Roman	Saxon	Medieval	Medieval	Modern	Unknown
1	1.88	0	0	0	0	0	0	0	0	1.0638298	6.3829787	1.5957447	1.5957447
II	6.16	0	0.3246753	0	0	0.3246753	0.1623377	0.974026	0.3246753	0	0	0	0
III	3.78	0	0	0	0	0.2645503	0.7936508	0.2645503	0.2645503	1.5873016	1.0582011	0.5291005	0.5291005
IV	3.42	0	0	0	0	0.2923977	0	0.5847953	0	0.5847953	2.6315789	0	0
V	2.53	0	0	0.3952569	0	0	0	0.7905138	0	0	4.743083	0	0
VI	3.79	0.2638522	0.5277045	0	0.7915567	0.2638522	0	0	0	2.3746702	1.3192612	0.2638522	0.2638522
VII	13.5	0	0	0	0	0	0	0	0	0.3703704	0.6666667	0.962963	0.962963
VIII	2.57	0.3891051	0.3891051	0.3891051	1.5564202	0	0.7782101	0	0	0.7782101	4.2801556	1.1673152	1.1673152
IX	1.09	0.9174312	0	0	0	0.9174312	0	0.9174312	0	2.7522936	0.9174312	1.8348624	1.8348624
Х	1.39	0.7194245	0	2.1582734	1.4388489	0	0	0	0	0.7194245	0.7194245	0	0
ΧI	0.18	0	0	0	0	0	0	0	0	0	22.22222	0	0
XII	1.81	0	0	0	0	0	0	0	0	0.5524862	0	0	0
XIII	0.48	0	0	0	0	0	0	0	0	4.1666667	0	0	0
XIV	4.2	0	0	0.2380952	0	0.7142857	0.4761905	1.6666667	0	2.1428571	3.8095238	0.4761905	0.4761905
XV	0.13	0	0	0	0	0	0	0	0	0	0	0	0
XVI	1.79	0	0	0	0	0	0	1.1173184	0.5586592	0.5586592	7.2625698	1.1173184	1.1173184
XVII	0.34	0	0	0	0	0	0	0	0	0	0	0	0
XVIII	0.07	0	0	0	0	0	0	0	0	0	0	0	0
XIX	0.85	0	0	0	0	0	0	0	0	0	3.5294118	2.3529412	2.3529412

Table 10. Geomorphic elements and evolution, depositional environments, post-depositional factors and archaeological preservation issues for the main lithostratigraphic elements in the Ver Valley study area.

Geomorphic element	Depositional environment type	Geomorphic evolution	Post depositional environmental factors	Archaeological preservation issues
Clay-with-flints (Tertiary to present)	Clay-with-flints is a 'remanié' deposit formed by <i>in situ</i> weathering and solifluction of pre-exisiting Palaeogene and earlier Quaternary deposits.	Periodic weathering producing the reddened appearance and periglaicla climate resulting in cryoturbation and mixing	Weathering and fissuring caused by mermaforst conditions. Also soluition of the underlying chalk bedrock	Concatenated sequences o fmaterial from Lower Palaeolithic to recent. Some material may be almost <i>in situ</i> .
Kesgrave Formation (MIS 13-?22)	High energy river systems with non- cohesive channel banks with potential for lower energy river systems with cohesive channel banks and overbank flooding.	(sands/gravels). Sedimentation within braided systems resulting in stacked	incision and downcutting creating terraces in pre-diversion Thames system followed by	In situ and reworked (through terrace systems) Lower Palaeolithic artefacts within main sediment body. Incision may lead to dewatering of sediments and through time decalcification of deposits lowering palaeoenvironmental potential. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
Lowestoft Formation (MIS 12)	Glacial conditions with major ice bodies in sub-glacial or ice-sheet margin situations. High energy water flow and chaotic moraine dumps.	Till forming in ice marginal conditions during ice advance and sub-glacially during ice retreat phases. Localised lake formation in ice dammed locations.	Incised by south flowing tributaries of the diverted Thames. Weathering and colluviation of remnants.	Reworked Lower Palaeolithic artefacts within main sediment body. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
River terrace deposits (age unknown) in places overlain by Enfield Silt	High energy river systems with non- cohesive channel banks with potential for lower energy river systems with cohesive channel banks and overbank flooding.	(sands/gravels). Sedimentation within braided systems resulting in stacked sequences of cut/fill form. Dominant	forms in post-diversion Thames system. Weathering and erosion (colluvial activity) on terrace edges.	In situ and reworked (through terrace systems) Lower Palaeolithic and Middle Palaeolithic artifacts (depending on age of sediments). Incision may lead to dewatering of sediments and through time decalcification of deposits lowering palaeoenvironmental potential. Surface of deposits may have concatinated sequences of Lower Palaeolithic to modern date.
Valley bottom gravel (MIS 2)	High energy river systems with non- cohesive channel banks.			Predominantly reworked Lower and Middle Palaeolithic artefacts. Surface of deposits may have late Palaeolithic material resting on surface.

ı	Holocene alluvium	Low to moderate energy river systems	Evolution of late glacial braided to	Some lateral erosion. Local	Range of later Prehistoric and Historical
	(MIS 1)	with cohesive banks and marsh	Holocene anastomosing river with	water table fluctuations modify	archaeological materials in situ on basal
		development or floodplain conditions	vertical accretion of sediment through	local conditions.	gravels or within landscape features associated
		away from river.	time. Channel position becoming		with human activity. Much material may be in
			stable. Fine grained sediments		situ but reworking also apparent.
			predominate including biogenics		
L			(tufa/peat)		

Table 11. Quaternary epochs and the Marine Isotope Stage framework for the Ver Valley study area.

Table 11.	Zuaicinary c	poens and	the Marine Isotope Stage		for the ver valley study area.	
				Traditional		
Epoch	Age kBP	MI Stage		stage (Britain)	Climate	Palaeogeographical events
Holocene	Present-	1		Flandrian	Warm — full interglacial	r alaeogeographical events
Holocerie	10,000	'	Alluvium	Fianunan		
	25,000	2	Buried channel		Mainly cold; coldest in MI Stage 2 when Britain depopulated and maximum advance	
	-,	3	A		of Devensian ice sheets; occasional short-	
Late	50,000		Valley bottom gravels	Devensian	lived periods of relative warmth ("interstadials"), and more prolonged	
Pleistocene	70,000	4	▼		warmth in MI Stage 3.	
	110,000	5a-d				
	125,000	5e		Ipswichian	Warm — full interglacial	
Middle Pleistocene	190.000	6			Alternating periods of cold and warmth; recently recognised that this period	
1 10.01000110	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7			includes more than one glacial-interglacial	
	240,000		?	\\/_!=t=-=:=-	cycle; changes in faunal evolution and assemblage associations through the	
	300,000	8		Wolstonian complex	period help distinguish its different stages.	Thames flowing in present course. Study are part of north bank tributaries
	340,000	9				flowing southwards
	380,000	10				
	425,000	11		Hoxnian	Warm — full interglacial	
	480,000	12	Smug Oak Gravel Lowestoft Formation (Moor Mill Laminated Clays/Westmill Gravel/ Ware Till/ Watton Road Laminated Silts	Anglian	Cold — maximum extent southward of glacial ice in Britain; may incorporate interstadials that have been confused with Cromerian complex interglacials	Major glaciation: Thames blocked by ice in Vale of St.Albans: major drainage modification
	620,000	13–16	<u> </u>	Cromerian complex and Beestonian	Cycles of cold and warmth; still poorly understood due to obliteration of sediments by subsequent events	Thames flowing to NE through St.Albans. Study areas part of south bank tributaries flowing northwards
	780,000	17–19	Kesgrave Formation (Westland Green Gravels)	glaciation		Human activity at Pakefield in East Anglia
Early Pleistocene	1,800,000	20–64	†		Cycles of cool and warn, but generally not sufficiently cold for glaciation in Britain	
Late Pliocene	>1.8mya		Clay-with-flints *			

Table 4. Quarrying statistics for Lea Valley study area.

Zone	Area (km)	Area lost	% Area lost
_	1.88	0.25	13.3
	6.16	2.34	38
	3.78	0.39	10.3
N	3.42	0.01	0.3
\	2.53	0.09	1
IA	3.79	0.64	16.9
\	13.5	0.01	0.7
VIII	2.57	0.08	3.1
ΙX	1.09	0.1	9.2
×	1.39	0	0
×	0.18	0	0
X	1.81	0	0
X	0.48	0.01	2.1
XIV	4.2	0.05	1.2
XV	0.13	0.5	0
XVI	1.79	0.09	5
X	0.34	0.01	0
XVIII	0.07	0	0
XIX	0.85	0.2	23.5

Table 5. A: Quarrying statistics for Lea Valley study area by grouped zones. B: by period

zones XIV	Plateau X	XVIII	<u>×</u>	<u> </u>				<u>=</u>		Valley \	XIX	<u> </u>			Floor	Valley	Zone
< < 	=	′ III	=	<u> </u>		_	=		_	`	×	_	=	_			1e
4.2 0.13	1.81	0.07	0.34	1.79	1.39	1.09	13.5	3.79	2.53	3.42	0.85	0.18	0.48	3.78	6.16	1.88	Area (km)
0.05 0.5	0	0	0.01	0.09	0	0.1	0.01	0.64	0.09	0.01	0.2	0	0.01	0.39	2.34	0.25	Area lost
1.2 0	0	0	0	ഗ	0	9.2	0.7	16.9		0.3	23.5	0	2.1	10.3	38	13.3	% Area lost

		Area		% Area
	Zone	(km)	Area lost	lost
	X	1.81	0	0
Pre-Anglian	×<	4.2	0.05	1.2
	XV	0.13	0.5	0
	<	3.42	0.01	0.3
	<	2.53	0.09	_
	<u>≤</u>	3.79	0.64	16.9
PostAnglian	¥	0.48	0.01	2.1
	⋝	1.09	0.1	9.2
	×	1.39	0	0
	×	1.79	0.09	Sī
	_	1.88	0.25	13.3
	=	6.16	2.34	38
	=	3.78	0.39	10.3
Holocene	×	0.18	0	0
	¥	0.48	0.01	2.1

		_			
Eroded		Unknown			
\	XVIII	X	XIX		
13.5	0.07	0.34	0.85		
0.01	0	0.01	0.2		
0.7	0	0	23.5		

APPENDIX I.

Zone description tables. Lea Valley zones I – XIX.

Zone descriptor I							
Total area of zone 1	1.88		Area of zo	Area of zone lost to quarrying:	rrying: <i>km</i> %	n²	0.25 13.3
Bedrock geology (defined)	ıed)	London Clay	lay				
Bedrock geology (description)	ription)						
Superficial geology (defined)	fined)	Alluvium.	Alluvium	Alluvium. Alluvium of Holocene date overlying gravels of Late	te overlying	gravels of	Late
Sumpafficial coology		Elecanicin	fines (alexa	Electrisian date (Lea valley Graver)	d organization) of	Tor Grand	200
Superficial geology		Area of de	lines (clays	Floodplain lines (clays/silts/sands and organics) over gravels and sands Area of deen basin like feature in gravel surface tonography	organics) o	ver gravel	s and sands.
(description)		Area or de	op oasm me	Area of deep dasiif like feature iii graver surrace topography.	ver surrace it	pograpity	
Geomorphological situation	ation	Valley floc and low slo	Valley floor, dominated by and low slope angles (<1°)	Valley floor, dominated by meandering channels, canalized channels and low slope angles ($<1^{\circ}$)	ng channels,	canalized	channels
Age range of sediments	S	Late Pleist	ocene (?20,	Late Pleistocene (?20,000)to recent			
Number of boreholes in zone	n zone]	12				
Number of palaeoenvironmental sites in	ronmenta	sites in					
zone							
Number of recorded sites in zone	tes in zon	e					
Paleolithic		Mesolithic	ic		Neolithic		
Bronze Age		Iron Age	,		Prehistoric		
Roman		Saxon			Medieval	2	
Post Medieval 12		Modern		3	Unknown		
Comments The earl	iest record	ed sites in the	ne zone date	The earliest recorded sites in the zone date to the modern period and include a moated site.	period and i	nclude a n	noated site.
The maj the Roya housing)	ority of th d Gunpow . Other f	e HER entric der works, ^v eatures recor	es relate to t Waltham Ab rded include	The majority of the HER entries relate to the industrial archaeology of the area; particularly the Royal Gunpowder works, Waltham Abbey and associated features (such as workers housing). Other features recorded include road bridges, gasworks and canal locks.	chaeology of ated features gasworks and	f the area; (such as defined and local	particularly workers cks.
Recorde	d modern	features con	ıprise pillbo	Recorded modern features comprise pillboxes constructed in World War II.	d in World W	[/] ar II.	
Key research questions	S						
Investigation strategies		Boreholes and tes Penetration Tests.	t pits. Loca	Boreholes and test pits. Localised geophysics (electrical conductivity). Cone Penetration Tests.	ss (electrical	conductiv	rity). Cone

Zone descriptor Total area of zone	ne 6.16	Ar	Area of zone lost to quarrying:	quarrying: km²	2.34
				%	30
Bedrock geology (defined)	y (defined)	London Clay,	London Clay, Lambeth Group		
Bedrock geology (description)	y (description)				
Superficial geology (defined)	ogy (defined)	Alluvium. Al	luvium of Holocer	Alluvium. Alluvium of Holocene date overlying gravels of Late	els of Late
,		Devensian date	Devensian date (Lea Valley Gravel)	/el)	
Superficial geology (description)	0gy	Floodplain fine	es (clays/silts/sand	Floodplain fines (clays/silts/sands and organics) over gravels and sands	gravels and sands
Geomorphological situation	cal situation	Valley floor, d	ominated by mean	Valley floor, dominated by meandering channels, canalized channels	lized channels
		and low slope angles (<1°)	angles (<1°)		
Age range of sediments	diments	Late Pleistocer	Late Pleistocene (?20,000)to recent	ent	
Number of boreholes in zone	holes in zone	43			
Number of pala	Number of palaeoenvironmental sites in	sites in			
zone					
Number of reco	Number of recorded sites in zone	9			
Paleolithic		Mesolithic	2	Neolithic	
Bronze Age		Iron Age	2	Prehistoric	-
Roman	6	Saxon	2	Medieval	
Post Medieval		Modern		Unknown	4
_	his zone includes	an important M	esolithic site at Ri	This zone includes an important Mesolithic site at Rikof's pit (a working floor and a large	loor and a large
	collection of unstratified material).	tified material)			,
S N	The Saxon period is represented Nursery, Nazing Mead in 1934 v suggested a minimum population recovered during the excavation.	s represented by lead in 1934 with um population for the excavation.	y an inhumation ce th subsequent rescriber the cemetery of	The Saxon period is represented by an inhumation cemetery, excavated at Lapwoods Nursery, Nazing Mead in 1934 with subsequent rescue excavations in the 1970s. Estimates suggested a minimum population for the cemetery of $c230$. Roman artifacts were also recovered during the excavation.	Lapwoods 1970s. Estimates ts were also
P	Post Mediaval sites with the river/canal	s comprise bridg l.	ges, locks, marker	Post Mediaval sites comprise bridges, locks, marker posts, wharves etc generally associated with the river/canal.	nerally associated
>	Modern features comprise World War II defences	omprise World V	War II defences.		
0 0	The sites of an unk of the river.	nown period are	e cropmarks and ea	The sites of an unknown period are cropmarks and earthworks identified on the Essex side of the river.	n the Essex side
Key research questions Investigation strategies	rategies				
Invesugation su	rategies				

7 and Jacouintan	TIII				
Total area of zone	ne 3.78		Area of zone lost to quarrying:	quarrying: km²	0.39
Bedrock geology (defined)	(defined)	London Clay	lay		_
Bedrock geology (description)	(description)				
Superficial geology (defined)	ogy (defined)	Alluvium.	Alluvium of Holocen	Alluvium of Holocene date overlying gravels of Late	ls of Late
		Devensian Kempton	Devensian date (Lea Valley Gravel). Towards edge gravels of the Kempton Park Gravel (earlier part of Devensian) may exist beneath the	el). Towards edge gra et of Devensian) may e	exist beneath the
Superficial geals	DOV	Floodplair	fines (clave/silts/sands	s and organics) over or	ravels and sands
(description)	<u> </u>	rioodpiaii	r loodpiant tilles (ctays/situs/sands and ofganics) over gravets and sands	s and organics) over gr	avels and sands
Geomorphological situation	cal situation	Valley flo	Valley floor, dominated by meandering channels, canalized channels	dering channels, canali	ized channels
A go rango of soc	limonte	Devension	Devencion (200 000) to recent		
Number of boreholes in zone	holes in zone	De l'entoime	33		
Number of palaeoenvironmental sites in	eoenvironmenta				
zone					
Number of recorded sites in zone	rded sites in zon	е			
Paleolithic		Mesolithic	hic	Neolithic	
$Bronze\ Age$		Iron Age	e 1	Prehistoric	3
Roman	1	Saxon	1	Medieval	6
Post Medieval	4	Modern	2	Unknown	
Comments P	Prehistoric period: Ar a Mesolithic context"	Aretefact c xt"	Prehistoric period: Aretefact collects, including one which " would not be out of place in a Mesolithic context"	vhich " would not be	e out of place in
re N	The Saxon period is represented Nursery, Nazing Mead in 1934 v suggested a minimum population recovered during the excavation.	is representa Jead in 1934 num populat he excavatio	The Saxon period is represented by an inhumation cemetery, excavated at Lapwoods Nursery, Nazing Mead in 1934 with subsequent rescue excavations in the 1970s. Estimates suggested a minimum population for the cemetery of <i>c</i> 230. Roman/LIA artefacts were also recovered during the excavation.	metery, excavated at L ae excavations in the 1' c230. Roman/LIA art	apwoods 970s. Estimates tefacts were also
f: T	Two medieval mo finds.	ated sites, a	Two medieval moated sites, a causeway and wall associated with the abbey. Also various finds.	ociated with the abbey	. Also various
>	1odern features c	omprise Wo	Modern features comprise World War II pillboxes		
T 0:	The sites of an unl of the river.	cnown perio	The sites of an unknown period are cropmarks and earthworks identified on the Essex side of the river.	ırthworks identified on	the Essex side
[:] *	** NB this zone ave not been incl	includes the uded in the	*** NB this zone includes the central area of Waltham Abbey.	m Abbey, HER entries for this area	for this area
Key research questions	lestions				
Investigation strategies	ategies		Ī		

Zone descriptor IV				
Total area of zone 3.42		Area of zone lost to quarrying:		km² 0.01
Bedrock geology (defined)	Upper Cha Formation)	Upper Chalk (Lewes Nodular Chalk Formation and Seaford Formation)	alk Formatio	n and Seaford
Bedrock geology (description)				
Superficial geology (defined)	Kempton	Kempton Park Gravel Formation. Much of area will consist of early	. Much of are	ea will consist of early
	to mid Dev	to mid Devensian sand and silts over gravels but thin spreads of Holocone alluvium may also be present	r gravels but	thin spreads of
Superficial geology	Thin vene	Thin veneer of fine clays-silts overlying sands and gravels	ying sands an	d gravels
(description)			0	q
Geomorphological situation	Valley edg	Valley edge, low lying topography (<3°)	(<3°)	
Age range of sediments	Devensian	Devensian (?90,000) to recent		
Number of boreholes in zone	-	42		
Number of palaeoenvironmental sites in	៧ sites in			
zone				
Number of recorded sites in zone	1e			
Paleolithic	Mesolithic	nic	Neolithic	
Bronze Age	Iron Age	e 1	Prehistoric	
Roman 2	Saxon		Medieval	2
Post Medieval 9	Modern		Unknown	3
Comments Roman remains include a pottery kiln	iclude a potto	ery kiln.		
Both nmedieval sites are moats	ites are moat	S		
Post medieval ren railways and cana	nains all asso ls, a gaswork	Post medieval remains all associated with industry for example features associated with the railways and canals, a gasworks and a brickworks.	xample featui	res associated with the
Key research questions				
Investigation strategies				

	Area of zone lost to qu	ıarrying: km² %	0.09
London Cla	Ŋ		
Kempton P	ark Gravel Formation	 Much of area will 	l consist of early
to mid Deve	nsian sand and silts ove	er gravels	
Thin veneer	of fine clays-silts over	lying sands and grav	/els
Valley edge.	low lying topography	(<3°)	
Early Deven	sian (c.90,000) to recei	nt	
41			
sites in			
Mesolithi	,	Neolithic	1
Iron Age		Prehistoric	
Saxon		Medieval	
Modern		Unknown	
ead			
ins and pott	ery)		
prise a memo	orial stone (?) and a mo	oted cite	
		alcu sitc	
		ARCH SIK	
	Zone descriptor V	one 2.53 Area of zone lost to question gy (defined) London Clay gy (description) blogy (defined) Kempton Park Gravel Formation to mid Devensian sand and silts over pical situation Valley edge, low lying topography ediments Early Devensian (c.90,000) to receretholes in zone 41 aeoenvironmental sites in	Area of zone lost to quarrying: In Clay In Clay In Clay In Clay Area of zone lost to quarrying: Con Park Gravel Formation. Much of a Devensian sand and silts over gravels edge, low lying topography (<3°) Con Park Gravel Formation. Much of a Devensian sand and silts overlying sands a edge, low lying topography (<3°) Con Park Gravel Formation. Much of a Prehistor of the posterior of t

Jone descriptor	VI					
Total area of zone			Area of a	Area of zone lost to quarrying:	arrying: km² %	0.64 16.9
Bedrock geology (defined)	(defined)	London Clay	lay			
Bedrock geology (description)	(description)					
Superficial geology (defined)	y (defined)	Enfield Si	lt Format	ion. Mid to Lat	te Devensian silt	Enfield Silt Formation. Mid to Late Devensian silt probably overlying
		older grave	els of the k	Kempton Park C	older gravels of the Kempton Park Gravel Formation	
Superficial geology	S.	Fine grained clays-silts	ed clays-si	lts.		
(description)						
Geomorphological situation	d situation	Valley side	e, low lyin	Valley side, low lying topography (<3°)	<3°)	
Age range of sediments	ments	Early Deve	ensian (c.9	Early Devensian (c.90,000) to recent	t	
Number of boreholes in zone	oles in zone		54			
Number of palaeoenvironmental sites in	environmenta	l sites in				
zone						
Number of recorded sites in zone	led sites in zon	e				
Paleolithic	1	Mesolithic	ic	2	Neolithic	
Bronze Age	3	Iron Age	į	1	Prehistoric	
Roman		Saxon			Medieval	9
Post Medieval	5	Modern		1	Unknown	
Comments			1			
Pal	Paleolithic (Levallois) artifact from Rikoff's pit	ois) artifact	from Riko	off's pit		
Tw	o Mesolithic oc	cupation sit	es (C14 da	ates of 9350 BP	Two Mesolithic occupation sites (C14 dates of 9350 BP +/- 120 and 6895BP +/-75)	5BP +/-75)
Bro	onze age entries	refer to arti	facts with	Bronze age entries refer to artifacts with possible uncertain provenance	ain provenance	
Me lep	Medieval sites include Rye H leper hospital and a derr park	lude Rye Ho a derr park.	use moate	ed site and assoc	ciated entries, Cho	Medieval sites include Rye House moated site and associated entries, Cheshunt nunnery, a leper hospital and a derr park.
Po	st medieval entr	ies refer to t	he river ar	nd canal, a corn	Post medieval entries refer to the river and canal, a corn mill and a watercress bed	cress bed
Key research questions Investigation strategies	stions tegies					
III v Caugauon au a	regres					

Zone descriptor VII								
Total area of zone 13.5			Area of	Area of zone lost to quarrying:	quarrying	g: km² %	0.01	
Bedrock geology (defined)	Lo	London Clay	lay					
Bedrock geology (description)	ion)							
Superficial geology (defined)		drock (v	/arious).	Bedrock (various). Eroding bedrock	drock			
Superficial geology		Bedrock at surface	surface					
(description)								
Geomorphological situation		Valley side	,					
Age range of sediments	N/	a concat	enated and	N/a concatenated and transported Palaeolithic to recent material	d Palaeolitl	nic to recer	nt material	
Number of boreholes in zone	,,,	5	54					
Number of palaeoenvironmental sites in	nental sit	es in						
zone								
Number of recorded sites in zone	n zone							
Paleolithic	7	Mesolithic	$\dot{i}c$		Neolithic	ithic		
Bronze Age		Iron Age	,		Preh	Prehistoric		
Roman	۲.	Saxon			Medieval	ieval	5	
Post Medieval 9		Modern		13	Unka	Unknown	6	
Comments Earliest perio	od represe	nted is th	ne mediev	al, records i	nclude mai	terial from	Earliest period represented is the medieval, records include material from excavations at	+
Grange Farm and Nazingbury moat.	n and Nazi	ingbury 1	noat.					
Range of post-medieval records including a to the Waltham Abbey Gunpowder Factory	st-medieva am Abbey	al record Gunpov	s includin vder Fact	g artifacts ro ory.	ecovered fr	om dredgi	Range of post-medieval records including artifacts recovered from dredging, chance finds, to the Waltham Abbey Gunpowder Factory.	ds,
Modern remains dominated Gun site and anti tank ditch	ains domi anti tank	nated by ditch.	features f	rom WWII	including p	oillboxes aı	Modern remains dominated by features from WWII including pillboxes and AntiAircraft Gun site and anti tank ditch.	ft
Key research questions								
Investigation strategies								

_<	_			
Total area of zone 2.57	A	Area of zone lost to quarrying:	o quarrying: km² %	0.08 3.1
Bedrock geology (defined)	London Clay	7		
Bedrock geology (description)				
Superficial geology (defined)	Enfield Silt F	Formation. Silt po	Enfield Silt Formation. Silt possibly of multi-period formation	d formation
	overlying gra- and Taplow C	overlying gravels of the Kempton Park (and Taplow Gravel Formation (upslope)	overlying gravels of the Kempton Park Gravel Formation (downslope) and Taplow Gravel Formation (upslope)	tion (downslope)
Superficial geology	Fine grained clays-silts	clays-silts.		
Geomorphological situation	Valley side, le	Valley side, low lying topography (<3°)	hy (<3°)	
Age range of sediments	Predominantl	y ? Late Middle Pl	Predominantly? Late Middle Pleistocene (200,000) Devensian	Devensian
	(20,000). Cor	ncatenated Middle	(20,000). Concatenated Middle Palaeolithic to modern	rn
Number of boreholes in zone				
Number of palaeoenvironmental sites in	sites in			
zone		-		
Number of recorded sites in zone	6			
Paleolithic 1	Mesolithic	1	Neolithic	-
Bronze Age 4	Iron Age		Prehistoric	2
Roman	Saxon		Medieval	2
Post Medieval 11	Modern	3	Unknown	
Comments This zone includes Paleolithi	the Turnford I c (Levallois) 't	Brickyard. Collect ortoise' core ' f	This zone includes the Turnford Brickyard. Collections from this yard include • Paleolithic (Levallois) 'tortoise' core ' found in Taplow Brickearth'	clude kearth'
EBA flints/potteryEIA pottery	s/pottery ry			
Entries also refer to and Neolithic date.	o flint artifacts	in the Warren Col	Entries also refer to flint artifacts in the Warren Collection, including material of Mesolithic and Neolithic date.	terial of Mesolithic
Key research questions				
Investigation strategies				

Zone descriptor IV					
e		Area of z	Area of zone lost to quarrying:	rying: km² %	0.1 9.2
Bedrock geology (defined)	London Clay	lay			
Bedrock geology (description)					
Superficial geology (defined)	Taplow C	ravel Forn	Taplow Gravel Formation. MIS 6-4 cold stage gravels and possible	cold stage grav	els and possible
	warm inte	warm interglacial silts	3		
Superficial geology	Sands and gravels	gravels			
Geomorphological situation	Vallev side	e			
Age range of sediments	Predomina	antly 200,00	0 – 50,000. Con	ncatenated Midd	Predominantly 200,000 – 50,000. Concatenated Middle Palaeolithic to
	recent.				
Number of boreholes in zone		3			
Number of palaeoenvironmental sites in	al sites in				
zone					
Number of recorded sites in zone	ne				
Paleolithic 1	Mesolithic	hic		Neolithic	
Bronze Age	Iron Age	e	1	Prehistoric	
Roman 1	Saxon			Medieval	3
Post Medieval 1	Modern		2	Unknown	1
Comments					
Paleolithic material a collection from Churchgate: includes several handaxes, a retouched flake pointed handaxe etc	ial a collection	n from Chu	rchgate: include	s several handax	es, a retouched
,					
Medieval sites: a religious house at Wormley, an aqueduct and holy wells	religious ho	ıse at Worm	ıley, an aqueducı	t and holy wells.	•
Key research questions					
Investigation strategies					

\dashv ×		A roa of zono lost to que		0
Total area of zone 1.39		Area of zone lost to quarrying:	rrying: km² %	0
Bedrock geology (defined)	London Clay	lay		
Bedrock geology (description)				
Superficial geology (defined)	Enfield Si	Enfield Silt Formation. Silt possibly of multi-period formation	ly of multi-period fo	rmation
	overlying	overlying gravels of the Taplow Gravel Formation (upslope)	vel Formation (upslo	ope)
Superficial geology	Fine grain	Fine grained clays-silts.		
(description)				
Geomorphological situation	Valley side	3		
Age range of sediments	Predomina	Predominantly? Late Middle Pleistocene (200,000) Devensian	cene (200,000) Dev	ensian
1	(20,000).	(20,000). Concatenated Middle Palaeolithic to modern	eolithic to modern	
Number of boreholes in zone	3	3		
Number of palaeoenvironmental sites in	sites in			
zone				
Number of recorded sites in zone	е			
Paleolithic 1	Mesolithic	ic	Neolithic	S
Bronze Age 2	Iron Age		Prehistoric	
Roman	Saxon		Medieval	1
Post Medieval 1	Modern		Unknown	
Comments Paleolithic materia	l recovered	Paleolithic material recovered from a brickworks. Includes Acheulian handaxe, butt end of	les Acheulian handa	ixe, butt end of
a handaxe and 2 flakes.	ikes.			
rey research questions				
Investigation strategies				

	Area of zone lost to q	uarrying: km² %	0
London (lay		
Alluvium	Probably late Devensia	an gravels beneath Ho	olocene silts.
Elements	of colluvium probably al	lso present	
Coarse gra	wel and sand overlain by	y fine grained clay-sil	lts
Valley flo	ors in tributary valleys		
Late Deve	nsian and Holocene		
	0		
Number of palaeoenvironmental sites in			
Number of recorded sites in zone			
Mesolit	nic	Neolithic	
Iron Ag	е	Prehistoric	
Saxon		Medieval	
Modern		Unknown	1
nains includ	bridges, an aqueduct a	nd a lock up.	
	London C Alluvium. Elements of Coarse gra Valley floo Late Deve Late Deve I sites in I sites in Mesoliti Iron Ag Saxon Modern nains include	London Clay Alluvium. Probably late Devensi Elements of colluvium probably a Coarse gravel and sand overlain b Valley floors in tributary valleys Late Devensian and Holocene O	Area of zone lost to quarrying: In Clay Im. Probably late Devensian gravels bent of colluvium probably also present gravel and sand overlain by fine grained floors in tributary valleys Evensian and Holocene O Neolithic Age Prehistor Medieval Unknown ude bridges, an aqueduct and a lock up.

Zone descriptor XII				
		Area of zone lost to quarrying:	to quarrying: km² %	0
Bedrock geology (defined)	London Clay	lay		
Bedrock geology (description)				
Superficial geology (defined)	Lowestoft	Formation. Mixed	Lowestoft Formation. Mixed packages of clay dominated till, coarse	ated till, coarse
	gravels int	gravels intermittently present.		
Superficial geology	Clays with	Clays with poorly sorted gravels	ls	
(description)				
Geomorphological situation	Valley top	Valley tops/plateau margins		
Age range of sediments	Anglian (c	450,000). May cont	Anglian (c450,000). May contain elements of Lower Palaeolithic	alaeolithic
	material.	Lower Palaeolihtic to	material. Lower Palaeolihtic to modern material concatenated on	tenated on
	surface			
Number of boreholes in zone		0		
Number of palaeoenvironmental sites in	d sites in			
zone				
Number of recorded sites in zone	ıe			
Paleolithic	Mesolithic	iic	Neolithic	
Bronze Age	Iron Age	9	Prehistoric	
Roman	Saxon		Medieval	1
Post Medieval	Modern		Unknown	
Comments Single HER refere	ence to earth	works and woodland	Single HER reference to earthworks and woodland banks which are probably medieval in	ly medieval in
date.				
Key research questions				

Zone descriptor XIII				
Total area of zone 0.48		Area of zone lost to quarrying:	quarrying: km² %	0.01 2.1
Bedrock geology (defined)	London Clay	Ilay		
Bedrock geology (description)				
Superficial geology (defined)	Alluvium	Alluvium. Probably late Devensian gravels beneath Holocene silts	ian gravels beneath H	olocene silts.
	Elements	Elements of colluvium probably also present	ปรo present	
Superficial geology	Coarse gr	Coarse gravel and sand overlain by fine grained clay-silts	y fine grained clay-si	llts
(description)				
Geomorphological situation	Valley flo	Valley floors in tributary valleys		
Age range of sediments	Late Deve	Late Devensian and Holocene		
Number of boreholes in zone		2		
Number of palaeoenvironmental sites in	l sites in			
zone				
Number of recorded sites in zone	ıe			
Paleolithic	Mesolithic	hic	Neolithic	
Bronze Age	Iron Age	re	Prehistoric	
Roman	Saxon		Medieval	2
Post Medieval	Modern		Unknown	
Comments 2 medieval moated sites	d sites			
Key research questions				
Investigation strategies				

\sim		A man of		1_2	0.02
Total area of zone 4.2		Area of zo	Area of zone lost to quarrying:	km² %	0.05 1.2
Bedrock geology (defined)	London Clay	lay			
Bedrock geology (description)					
Superficial geology (defined)	Kesgrave	Formation.	Kesgrave Formation. Stratified sands and gravels	gravels.	
Superficial geology	Sands and gravels	gravels			
(description)					
Geomorphological situation	Valley tops/plateaus	s/plateaus			
Age range of sediments	Pre-Angl	ian Thames	Pre-Anglian Thames deposits. May contain reworked or in situ Lower	n reworked o	or in situ Lower
	Palaeolithi	c material.	Palaeolithic material. Concatenated Lower Palaeoltihic to modern	Palaeoltihic t	to modern.
Number of boreholes in zone		8			
Number of palaeoenvironmental sites in	l sites in				
zone					
Number of recorded sites in zone	e				
Paleolithic	Mesolithic	iic	Neolithic	hic	1
Bronze Age	Iron Age	9	3 Prehistoric	toric	2
Roman 7	Saxon		Medieval	val	9
Post Medieval 16	Modern	2	2 Unknown	эwп	3
Comments					
Key research questions					
Investigation strategies					

Zone descriptor XV			
Total area of zone 0.13	Area o	Area of zone lost to quarrying:	km² 0.5ha % 0
Bedrock geology (defined)	London Clay		
Bedrock geology (description)			
Superficial geology (defined)	Dollis Hill Gravel Formation	Formation.	
Superficial geology	Sands and gravels v	Sands and gravels with small proportion of Greensand chert. Locally	ensand chert. Locally
(description)	beds of laminated s	beds of laminated silt and clay also present	
Geomorphological situation	Valley tops/plateaus	IS	
Age range of sediments	Approximately 550	Approximately 550,000 BP. Many contain reworked Lower	orked Lower
	Palaeoltihic materi	Palaeoltihic material. Concatenated Lower Palaeoltihic to modern	aeoltihic to modern
	material on surface		
Number of boreholes in zone	0		
Number of palaeoenvironmental sites in	l sites in		
zone			
Number of recorded sites in zone	ıe		
Paleolithic	Mesolithic	Neolithic	
Bronze Age	Iron Age	Prehistoric	ric
Roman	Saxon	Medieval	
Post Medieval	Modern	Unknown	7
Comments			
Key research questions			
Investigation strategies			

	Area of zone lost	to quarrying: km² %	0.09 5
London C	lay		
Taplow G	ravel Formation.	MIS 6-4 cold stage grave	ls and possible
warm inter	glacial silts		
Sands and	gravels		
Valley side			
Predomina:	ntly 200,000 - 50,0	000. Concatenated Middle	e Palaeolithic to
recent.			
2			
sites in			
9			
Mesolith	$\dot{i}c$	Neolithic	
Iron Age		Prehistoric	
Saxon	1	Medieval	1
Modern	2	Unknown	
references a	re to collections of	f finds	
	Total area of zone 1.79 London Cl Bedrock geology (defined) London Cl Bedrock geology (defined) Valley side Superficial geology (defined) Valley side Age range of sediments Valley side Age range of sediments Valley side Age range of sediments Predominary cone Valley side Sites in zone Va	London Clay Taplow Gravel Formation. warm interglacial silts Sands and gravels Valley side Predominantly 200,000 – 50, recent. 9 sites in Mesolithic Iron Age Saxon 1 2 Modern 2 references are to collections or	Area of zone lost to quarrying: In Clay V Gravel Formation. MIS 6-4 cold stage interglacial silts and gravels Side inantly 200,000 – 50,000. Concatenated in a language in the language i

Zone descriptor XVII			
Total area of zone 0.34	Area of zon	Area of zone lost to quarrying: km^2	$\begin{vmatrix} 2 & < 0.01 \\ 0 & \end{vmatrix}$
Bedrock geology (defined)	London Clay		
Bedrock geology (description)			
Superficial geology (defined)	Unkown. Possible fluvial sands and gravels	ial sands and gravels	
Superficial geology	Sand and gravel		
(description)			
Geomorphological situation	Valley side		
Age range of sediments			
Number of boreholes in zone	1		
Number of palaeoenvironmental sites in	ıl sites in		
zone			
Number of recorded sites in zone	1e		
Palaeolithic	Mesolithic	Neolithic	
Bronze Age	Iron Age	Roman	
Saxon	Medieval	Post-Medieval	eval
Comments			
Key research questions			
Investigation strategies			

Zone descriptor XVIII				
Total area of zone 0.07	Aı	Area of zone lost to quarrying:	$km^2 = 0$	
Bedrock geology (defined)	London Clay			
Bedrock geology (description)				
Superficial geology (defined)	Unkown. Poss	Unkown. Possible fluvial sands and gravels		
Superficial geology	Sand and gravel	/el		
(description)				
Geomorphological situation	Upper Valley side	side		
Age range of sediments				
Number of boreholes in zone	0			
Number of palaeoenvironmental sites in	sites in			
zone				
Number of recorded sites in zone	e			
Paleolithic	Mesolithic	Neolithic		
Bronze Age	Iron Age	Prehistoric	ric	
Roman	Saxon	Medieval	l	
Post Medieval	Modern	Unknown	n	
Comments				
Key research questions				
Investigation strategies				

Zone descriptor VIV					
_		Area of zo	Area of zone lost to quarrying:	km² %	0.20 23.5
Bedrock geology (defined)	Upper Ch	ıalk (Lewes	Upper Chalk (Lewes Nodular Chalk Formation and Scaford	nation and Seaf	ord
	Formatio	Formation); Lambeth Group	h Group		
Bedrock geology (description)					
Superficial geology (defined)	Alluvium	. Alluvium	Alluvium. Alluvium of Holocene date overlying gravels of Late	lying gravels of	Late
	Devensiar	ı date (Lea V	Devensian date (Lea Valley Gravel). Towards edge gravels of the	ds edge gravels	of the
	Kempton	Park Gravel	Kempton Park Gravel (earlier part of Devensian) may exist beneath the	sian) may exist	beneath the
	alluvium				
Superficial geology	Floodplain	n fines (clays	Floodplain fines (clays/silts/sands and organics) over gravels and sands	ics) over gravels	and sands
(description)					
Geomorphological situation	Valley flo	or, dominate	Valley floor, dominated by meandering channels, canalized channels	mels, canalized	channels
	and low sl	and low slope angles ($<1^{\circ}$).	(<1°). River confluence zones	e zones	
Age range of sediments					
Number of boreholes in zone		41			
Number of palaeoenvironmental sites in	sites in				
zone					
Number of recorded sites in zone	е				
Paleolithic	Mesolithic	hic	Neolithic	thic	
Bronze Age	Iron Age	·e	Prehistoric	storic	
Roman	Saxon		Medieval	eval	
Post Medieval 3	Modern	2	2 Unknown	оwn 1	
Comments Post-medieval/mod	dern entries	relate to the	Post-medieval/modern entries relate to the canal/river (and associated features) the railway	ciated features) tl	he railway
	ture.				
Key research questions					
Investigation strategies					

Table 4. Distribution of geoarchaeological zones by geomorphological position in Lea

		XIII, XIX	IVALLEM, SMM, area.IV, V, VI, VII,	Valley bottom
XVIII	XVI, XVII,	VIII, IX, X,	aIV, V, VI, VII,	│
			XII,XIV,XV	Valley tops

Table 5. Distribution of geoarchaeological zones by phase.

side VII	XVII, XVIII	valley bottom I, II, III, XI, XIII, XIX	XII, XIV, XV	XII, XIV, XV
Eroded	Unknown	Holocene	Post-Anglian	Pre-Anglian