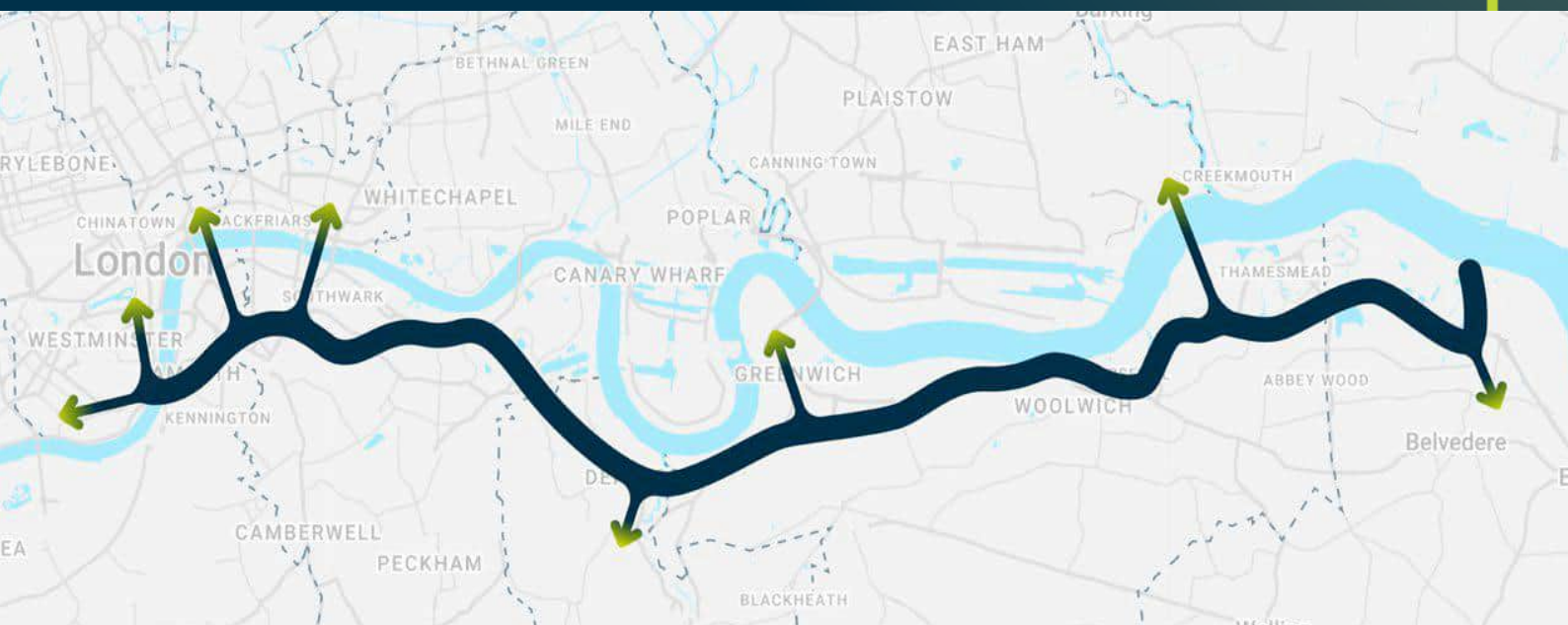




LONDON STRATEGIC HEAT MAIN

Environmental Impact Assessment Scoping Report Volume 3: Appendices



Cory Environmental Holdings Limited

July 2026

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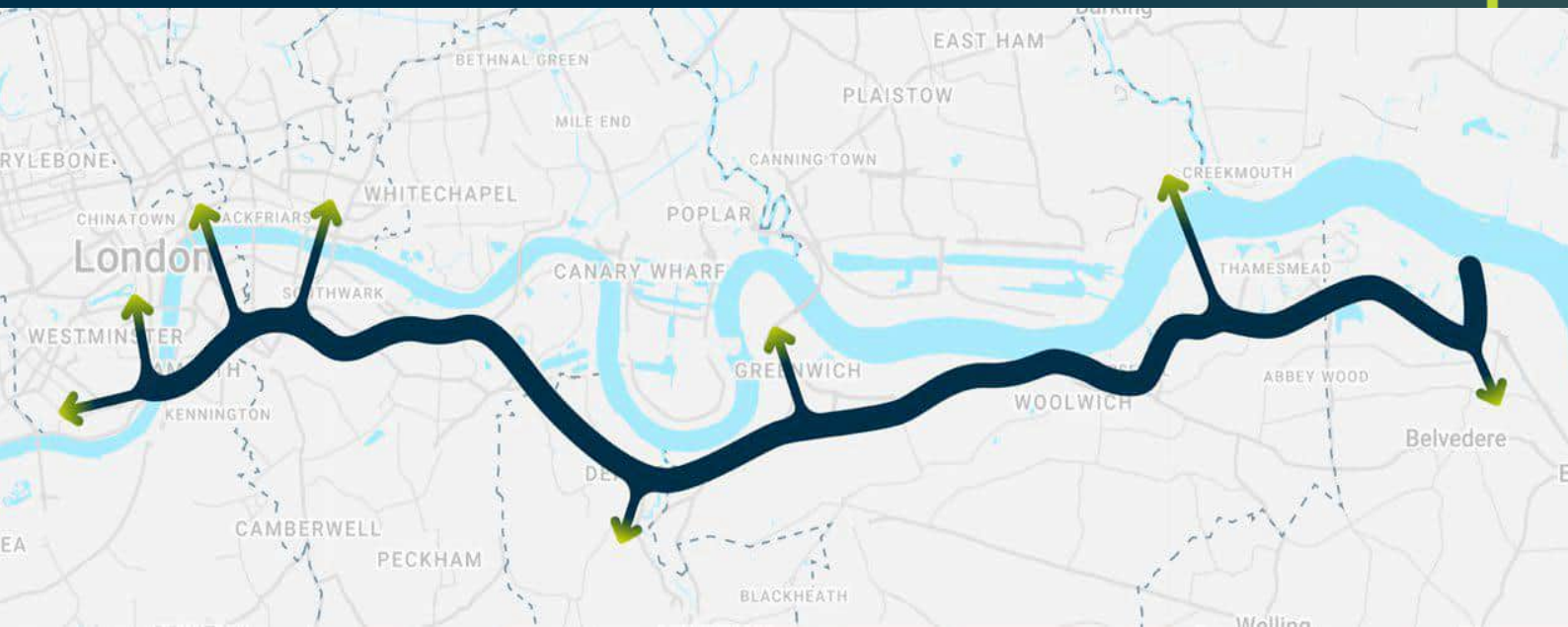
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Appendix 5-1: Transboundary Effects Screening Matrix



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1. Appendix 5-1: Transboundary Effects Screening Matrix

- 1.1.1 Regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ‘the EIA Regulations’ (2.Ref 1) requires the consideration of any likely significant effects on the environment of European Economic Area (EEA) countries.
- 1.1.2 Guidance on the consideration of transboundary effects is provided in the Planning Inspectorate’s Advice on Transboundary Impacts and Process (2.Ref 2).
- 1.1.3 **Table 1** provides the screening matrix for transboundary effects in accordance with Annex 1 of the Planning Inspectorate’s Advice Note Twelve (Ref 2). In summary, **Table 1** concludes that the Proposed Scheme is not likely to give rise to transboundary effects.

Table 1: Screening Matrix for Transboundary Effects

Screening Criteria and Relevant Considerations	Commentary with regard to the Proposed Scheme
Characteristics of the Scheme • Size of the Scheme • Use of natural resources • Production of waste • Pollution and nuisances • Risk of accidents • Use of technologies	The aim of the Proposed Scheme is to distribute generated waste heat from energy from waste facilities at Riverside Campus, located in Belvedere, London Borough of Bexley (LBB), to areas of high heat demand across London. The resources required for the construction of the Proposed Scheme are likely to be obtained from the global market, but it is envisaged that materials would be obtained locally, wherever reasonably practicable. No waste, pollution, nuisances or accidents are likely to extend beyond the border of the UK, as demonstrated by the Study Areas of the technical assessments presented within the EIA Scoping Report. No novel technologies are proposed that have the potential for transboundary effects.

Screening Criteria and Relevant Considerations	Commentary with regard to the Proposed Scheme
Location of Scheme (including existing use) and Geographical area • What is the existing use? • What is the distance to EEA states? (Name EEA state) • What is the extent of the area of a likely impact under the jurisdiction of an EEA state?	The existing uses of the land within the EIA Scoping Boundary¹ mostly comprise existing roads, urban development, residential and commercial properties. A notable asset within the EIA Scoping Boundary is the Riverside Campus, currently accommodating two energy from waste facilities located in Belvedere, and which will be the anchor source of the heat network. The closest EEA country to the Proposed Scheme is France, located approximately 125km south-east at the closest point. No impacts are likely to extend beyond the jurisdiction of the UK, with the exception of potential greenhouse gas (GHG) emissions, for which the receptor is the global climate rather than a specific EEA state. Further details on the GHG emissions assessment are provided within Volume 1, Chapter 7: Climate, of the EIA Scoping Report.
Environmental Importance • Are particular environmental values (e.g. protected areas – name them) likely to be affected? • Capacity of the natural environment. • Wetlands, coastal zones, mountain and forest areas, nature reserves and parks, Natura 2000 sites, areas where environmental quality standards already exceeded, densely populated areas, landscapes of historical,	There are a number of statutory designated nature conservation sites of European importance within 10 km of the Proposed Scheme, these include: • Wimbledon Common SAC (approximately 6.3km at its closest point) • The Lee Valley SPA/Ramsar (approximately 6.6km at its closest point). • Richmond Park SAC (approximately 7.3km at its closest point) • Epping Forest SAC (approximately 9km at its closest point)

¹ EIA Scoping Boundary, correspond to the area shown in Volume 2, Figure 1-1

Screening Criteria and Relevant Considerations	Commentary with regard to the Proposed Scheme
cultural or archaeological significance.	Based on the Zone of Influence applicable to the various potential impacts of the Proposed Scheme, standard control measures and the localised effects of the Proposed Scheme, likely significant effects on these sites are scoped out in relation to all impacts (refer to Volume 1, Chapter 8: Ecology for further information). It is therefore anticipated that there is no potential for transboundary effects (and therefore any effects on important environmental receptors beyond the UK).
Potential impacts and Carrier By what means could impacts be spread (i.e. what pathways)?	The only potential transboundary environmental impact which is considered likely is from GHG emissions. These emissions would be spread by atmospheric processes, but the receptor would be the global climate rather than a specific EEA state or country.
Extent - What is the likely extent of the impact (geographical area and size of the affected population)? Magnitude - What will the likely magnitude of the change in relevant variables relative to the status quo, taking into account the sensitivity of the variable? Probability - What is the degree of probability of the impact? - Is the impact likely to occur as a consequence of normal conditions or exceptional situations, such as accidents?	The only potential transboundary environmental impact which is considered likely is from GHG emissions, which are known to contribute to changes on climate on a global scale. The impact of GHG emissions is considered irreversible within human lifetimes, however, the emissions from the Proposed Scheme are expected to be minimal within a global scale. Likely GHG emissions would be calculated and assessed as part of the EIA. GHG impacts will be put into context in terms of their impact on the UK's five-year carbon budgets which set legally binding targets for GHG emissions. In any event, the global nature of GHG impacts means that it is not possible to apportion or identify any impact in GHG emissions in terms of environmental effects on any particular country or state. It follows that there is no

Screening Criteria and Relevant Considerations	Commentary with regard to the Proposed Scheme
Duration - Is the impact likely to be temporary, short-term or long-term? - Is the impact likely to relate to the construction, operation or decommissioning phase of the activity? Frequency - What is likely to be the temporal pattern of the impact? Reversibility - Is the impact likely to be reversible or irreversible?	potential for significant effects on the environment of any EEA State or group of EEA States resulting from GHG emissions of the Proposed Scheme, as the environmental receptor in this regard is the global atmosphere, rather than the environment of any country or state or group of countries or states. The GHG emissions are considered at a global level and so would be captured by the assessment in the ES.
Cumulative impacts Are other major developments close by?	Other major developments within the cumulative ZOI will be taken into consideration in the EIA. However, it is not anticipated that there is potential for significant cumulative transboundary effects.

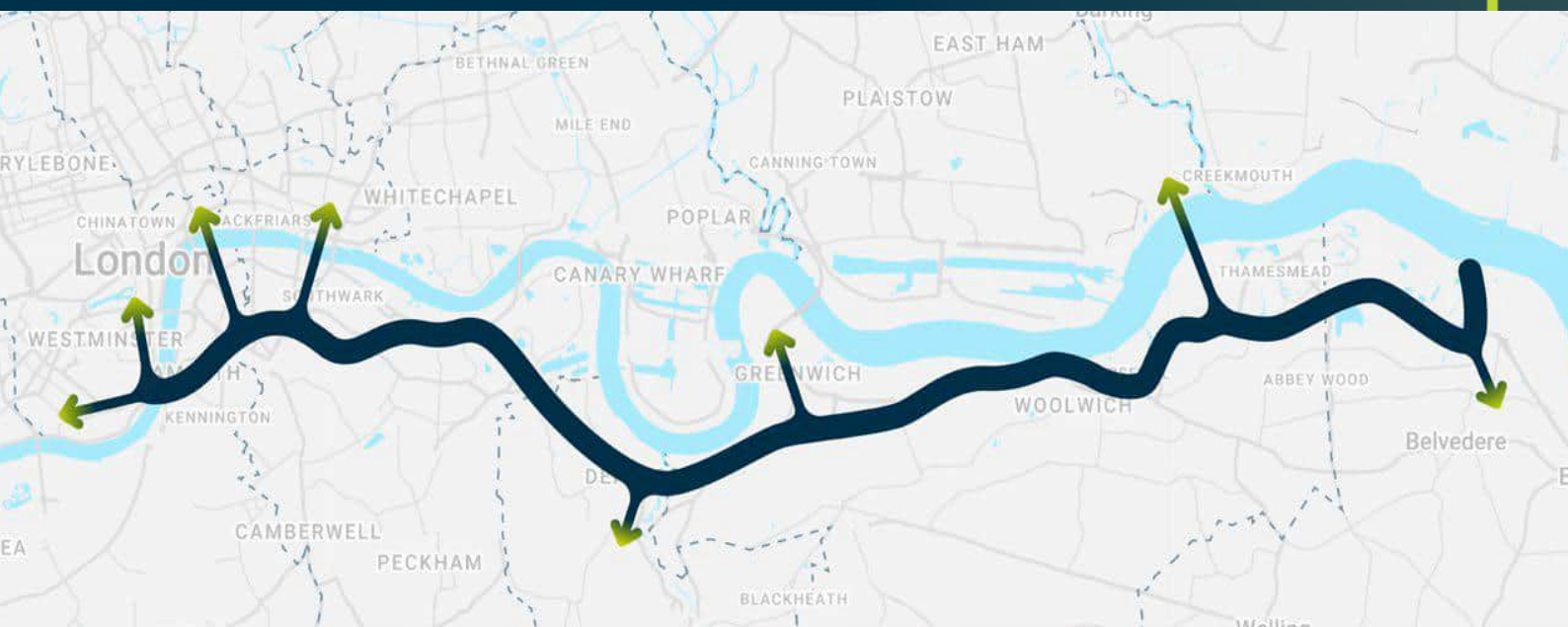
2. Reference List

- Ref 1 His Majesty's Stationery Office (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations (as amended). Available at: <https://www.legislation.gov.uk/ukxi/2017/572/contents> [Accessed 14/05/2026].
- Ref 2 Planning Inspectorate (2025) Advice on Transboundary Impacts and Process. Available at: <https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-twelve-transboundary-impacts-and-process>. [Accessed 13/05/2026].

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Appendix 10.1: Historic Environment Baseline



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1. Appendix 10.1: Historic Environment Baseline

1.1 Introduction

- 1.1.1 This appendix describes the historical and archaeological baseline context for the area within the EIA Scoping Boundary and surrounding 100m Study Area. To assist with the scoping assessment presented in **Volume 1, Chapter 10: Historic Environment**, data has been considered from the National Heritage List for England (NHLE) and the Greater London Historic Environment Record (GLHER). All heritage assets identified within the EIA Scoping Boundary¹ and 100m Study Area are illustrated in **Volume 2, Figure 10.1 Designated Heritage Assets** and **Figure 10.2 Non-designated Heritage Assets**.
- 1.1.2 Heritage assets are referred to in the text by a unique identity code in bold and parentheses, assigned by the NHLE (e.g. NHLE 1003669) for designated assets and by the GLHER Primary Reference Number (PRN) (e.g. GLHER 136583) for non-designated heritage assets.

1.2 Geology and Topography

- 1.2.1 The London Basin is a wedge-shaped declivity in which London is located. The bedrock of the basin is comprised of a sequence of clays and sands of the Neogene and Paleogene periods. Overlaying the bedrock are superficial deposits which were formed as a result of fluvial processes and considerable quantities of made ground. Modern London is built on made ground, the deposits of centuries of continuous human occupation, which have accumulated across the entire city, with an average between 10 and 16 feet (3 and 5 meters) in the oldest urban nuclei of the City and Westminster (Ref 1). As such, the bedrock and superficial deposits are usually at a notable depth. The geology for each borough is outlined in **Table 1-1**.

Table 1-1 Geology by London Borough

London Borough	Bedrock	Superficial Deposits
London Borough of Bexley (LBB)	- London Clay Formation (clay, silt and sand) - Lambeth Group (sand, silt and clay) - Thanet Formation (sand, silt and clay)	Alluvium (silt)
Royal Borough of Greenwich (RBG)	Lambeth Group (sand, silt and clay)	Alluvium (silt)

¹ 'EIA Scoping Boundary', correspond to the area shown in Volume 2, Figure 1-1.

London Borough	Bedrock	Superficial Deposits
	• Thanet Formation (sand, silt and clay) • Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (chalk)	• Alluvium (clay, silt, sand and peat) • Head (clay, silt, sand and gravel) • Kempton Park Gravel Member (sand and gravel)
London Borough of (LBLe) Lewisham	• Lambeth Group (sand, silt and clay) • Thanet Formation (sand, silt and clay)	• Alluvium (clay, silt, sand and peat) • Kempton Park Gravel Member (sand and gravel)
London Borough of Southwark (LBS)	• London Clay Formation (clay, silt and sand) • Lambeth Group (sand, silt and clay) • Thanet Formation (sand, silt and clay)	• Alluvium (clay, silt, sand and peat) • Kempton Park Gravel Member (sand and gravel)
London Borough of Lambeth Borough (LBLa)	• London Clay Formation (clay, silt and sand)	• Alluvium (clay, silt, sand and peat) • Kempton Park Gravel Member (sand and gravel)
London Borough of Barking and Dagenham (LBBD)	• London Clay Formation (clay, silt and sand) • Lambeth Group (sand, silt and clay) • Thanet Formation (sand, silt and clay) • Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (chalk)	• Alluvium (silt)

London Borough	Bedrock	Superficial Deposits
London Borough of Tower Hamlets (LBTH)	- London Clay Formation (clay, silt and sand) - Lambeth Group (sand, silt and clay)	Alluvium (clay, silt, sand and peat)
City of London Corporation (CoL)	London Clay Formation (clay, silt and sand)	- Alluvium (clay, silt, sand and peat) - Langley Silt Member (clay and silt) - Taplow Park Gravel Member (sand and gravel)
Royal Borough of Kensington and Chelsea (RBKC)	London Clay Formation (clay, silt and sand)	- Alluvium (clay, silt, sand and peat) - Langley Silt Member (clay and silt) - Taplow Park Gravel Member (sand and gravel) - Kempton Park Gravel Member (sand and gravel) - Lynch Hill Gravel Member (sand and gravel)

1.3 Historical and Archaeological Context of London

Palaeolithic (1,000,000 BP to 9,000 BC)

- 1.3.1 London has been influenced by the River Thames since the Anglian glaciation c.450,000 BC, when the Thames was diverted to its current location (Ref 2). Human occupation of southern England did not occur until the Upper Palaeolithic Period (50,000 – 12,000BC), becoming continuous c.10,000BC when the environment and climate became more favourable (Ref 3). Given this, the Thames River Valley experienced limited human presence prior to the Holocene.

- 1.3.2 Erosion has removed many of the Palaeolithic land surfaces, meaning Palaeolithic remains are mostly recorded in secondary contexts along major river valleys. Palaeolithic evidence is dominated by stone tool finds in alluvial and gravel deposits of the Thames flood plains. Important sites towards the end of the Palaeolithic period have been identified in the Colne Valley at Three Ways Wharf, Uxbridge and Church Lammas, Staines (Ref 3).

Mesolithic (9,000 BC – 4,000 BC)

- 1.3.3 River levels in the Thames rose rapidly throughout the Mesolithic period and the valley sides supporting terrestrial soils and then a wooded environment, which would have been used by hunter-gatherer communities for seasonal encampments. Braided river channels and small islands would have formed in the lower marshlands which were exploited by Mesolithic people.
- 1.3.4 Current evidence suggests that the river valleys and flood plains in London were the favourable locations for Mesolithic settlement. Most evidence consists of isolated finds of flintwork, although other stone, bone and antler artefacts have been recovered from the Thames (Ref 2). Mesolithic sites and lithic finds have also been found to be concentrated along the Thames tributaries, in particular along the Colne, the Wandle, the Cray, and the Lea (Ref 3). Excavations across different landscape types have produced a range of *in situ* early Mesolithic material, including the Colne Valley at Three Ways Wharf, Uxbridge, the high ground on West Heath, Hampstead, and the shoreline of a silting Late Glacial lake in Bermondsey, Southwark (Ref 3).

Neolithic (4,000 BC – 2,200 BC)

- 1.3.5 The move from hunter-gatherer communities to farming communities in the Neolithic led to an increasingly organised landscape (Ref 3). Given this, the period is characterised by the emergence of new flint working techniques, agricultural practices, permanent settlements, and large funerary monuments. The floodplain would have remained marshland and largely uninhabitable, however, it would have been exploited. This exploitation involved more ephemeral activities rather than features, but the waterlogged conditions of the Thames Valley marshland are known to preserve organic materials that have been recovered from peat deposits.
- 1.3.6 Evidence of Neolithic settlement within London clusters around the west London gravels, the chalk outcrop in south London and Thames-side locations (Ref 2). The London Clay is likely to have been unsuitable for farming practices and as such the gravel terraces were favoured (*Ibid.*). Apart from the Runnymede Bridge, intertidal zone at Chelsea, and Fort Street, Silvertown, *in situ* evidence of domestic settlements have largely eluded identification but may lie sealed beneath alluvium (Ref 3).

Bronze Age (2,200 BC – 800 BC)

- 1.3.7 The landscape was gradually transformed into a recognisably agricultural landscape during the Bronze Age (Ref 3). The elevated river terraces continued to be sought out for permanent settlement, with co-axial field systems established. Archaeological discoveries along the floodplain indicate that the intertidal zone was utilised for different activities including grazing, fishing, fowling and salt manufacture during the Bronze Age.
- 1.3.8 The investigation of peat deposits, and of the well-preserved wooden trackways and other structures recovered, has revealed the presence of a buried Bronze Age landscape across much of the Thames floodplain (Ref 2). The lower Thames and Thames estuary area are thought to have been central to the development of Late Bronze Age material culture types in southern Britain, and perhaps the social changes these may represent (*Ibid.*). Equally, further sites are likely to lie undiscovered beneath expanses of open space flanking the Thames, such as the various Royal Parks.

Iron Age (800 BC – AD 43)

- 1.3.9 The Early Iron Age saw an increase in settlement and a worsening climate, during which it is likely that more marginal land would have been exploited and brought into agricultural use, including small 'eyots' across the marshland (Ref 2). However, due to rising sea levels and the consequent marine transgression, the area directly adjacent to the River Thames would have been largely submerged during this period.
- 1.3.10 The Late Iron Age saw an intensification of agricultural activity across the Thames Valley, involving the re-alignment of field boundaries and the establishment of new types of enclosed settlements (Ref 3). Political elites began to emerge, their presence linked with the appearance of early 'enclosed oppida', with possible evidence of this noted at Uphall Camp along the River Roding and a possible second site at Woolwich (*Ibid.*). The circulation of coinage and trade with Rome intensified in the 1st century BC, with London on the western periphery of the primary contact and trade zone. Evidence from the Thames Valley is also characterised by the deposition of Late Iron Age metalwork in the wetland environment, possibly deliberately deposited in a recognised boundary zone (Ref 3). However, recent evidence of Iron Age settlements on the banks of the river suggests that this metalwork may actually be indicative of settlement activity.

Roman (AD 43 – 410)

- 1.3.11 The settlement of *Londinium* was established between AD 47-50 on the northern bank of the River Thames (Ref 3). The core of the settlement lay on the current site of the City of London, focused on Cornhill (Ref 4). By AD 200 the city was surrounded by a large wall with a number of gates allowing access to the surrounding agricultural hinterland. The town was established as a

trading port along the River Thames and quickly became a hub. At high tide in the 1st century, low-lying areas, including much of present Southwark and Westminster, were largely submerged, leaving small islands of higher land (Ref 3). Roman Southwark was established across several gravel islands, expanding through the period by a process of steady reclamation to become an important centre in its own right.

- 1.3.12 A bridge was built across the river connecting the City to Southwark, whilst a ferry crossing was also known to have existed at Woolwich. The larger tributaries of the Thames, notably the Lea and Roding, were presumably navigable and are likely to have been important routeways. The surrounding landscape was intersected by a network of roads which were rapidly developed in the 2nd century connecting the cities and towns (Ref 2). These roads also connected to the small settlements, farming and industrial activity beyond the City. Military forts were also located within the City and beyond the wall, with the possible site of a Roman bastion identified within St Botolph Bishopsgate Churchyard.

Early medieval (410 – 1066)

- 1.3.13 After the Roman Army withdrew in AD 410, Londinium was largely abandoned. There is little evidence from the early medieval period within the city until the return of Christianity to the region in the 7th century (Ref 3). By the middle of the early medieval period, two settlements had developed, the trading port of *Lundenwic* located around Covent Garden and The Strand, and an extramural settlement of the former Roman town (Ref 5). The mid-9th century is characterised by the onset of Viking attacks on London, and the shift of settlement from *Lundenwic* to the walled area of *Londinium*. The Roman walls were re-established and the city became a fortified settlement known as a *Burh*. Whilst agricultural activity and small settlements are known to have been established beyond the early medieval cores, these were restricted to the higher areas of the gravel terraces which rose above the marshland of the floodplain, as seen at Deptford.
- 1.3.14 From the 7th century, important early Christian sites were established. The construction of St Paul's Cathedral began at this time, with the ground consecrated in AD 604. In AD 785, a small timber Christian church, named Saint Peter on Thorney, was constructed on Thorney Island in Westminster and was followed by the foundation of a small Benedictine monastery (Ref 6). Westminster eventually became the capital of England under the Danish King Cnut (reigned 1017-35). Edward the Confessor (reigned 1042-66) enlarged the monastery and established the predecessor to Parliament. He also built himself a Royal palace (c.1045-50), consolidating the presence of the Monarch, his court and government in Westminster (*Ibid.*).

Medieval (1066 – 1540)

- 1.3.15 William the Conqueror aimed to consolidate his power through the construction of religious institutions and defensive structures. Within the city walls, over 100 churches existed during this period, whilst London's three Norman castles (the Tower of London, Baynard's Castle and Montfichet's Tower) were examples of defensive development (Ref 3). The City of London was also surrounded by city walls, with six gatehouses at Aldersgate, Aldgate, Bishopsgate, Cripplegate, Ludgate and Newgate, and a seventh added at Moorgate in 1415. Beyond the city walls, Westminster became the permanent seat of Parliament and the Judiciary, with the treasury moved to Westminster by King John (reigned from 1199-1216) (Ref 7). Thus, the surrounding area became more populated, leading to progressive reclamation of the floodplain. By the 15th century, the area around present-day Whitehall had become defined by York Place, which was located on the medieval route which connected the City of London and Westminster. When Henry VIII came to the throne in 1509, Westminster Palace became the monarch's principal residence, although the King soon moved to Lambeth Palace, and then to York Place, transforming it into Whitehall Palace (Ref 6).
- 1.3.16 Further settlement was found in boroughs (fortified settlements) at Barking, Bermondsey and Lambeth, whilst isolated farming settlements would have been located between these areas (Ref 2). Only one bridge crossed the River Thames close to the City: London Bridge, although there were also bridges at Bow, Kingston upon Thames, Fulham, and Brentford. The smaller tributaries which fed the Thames began to be moved underground during this period, with the Wallbrook covered over as early as 1300.

Post-medieval (1540 – 1900)

- 1.3.17 The population of London grew from 120,000 in 1550 to just over 1 million in 1801 (Ref 3). During the 18th century, this increase caused an expansion of housing beyond the city walls. To accommodate this expansion, land reclamation schemes were undertaken across the floodplain and the land was used for agriculture. The flood defences along the River Thames continued to be problematic until the 19th century, which largely prevented settlement of the area prior to this (Ref 2). There became a desperate need for more docks in the 19th century to accommodate the increase in trade, with new docks developed at Greenwich, Deptford and Woolwich.
- 1.3.18 Throughout this period, London could be divided into three distinctive areas: Westminster – a political and social area; the City and Fleet Street – a commercial, financial and legal area; and the East End – a trade and industrial area (Ref 3). Westminster remained an integral area, with Whitehall Palace being the largest palace in Europe during the 16th century, although it was abandoned during the reign of William III (1689 – 1702) and destroyed by a

fire in 1698 (Ref 6). Private estates were subsequently developed which extended west, reaching Mayfair by the 18th century.

- 1.3.19 The English Civil War also left its mark on London, with, the erection of defences undertaken in 1642. Early defences consisted of small forts, slit trenches and guard houses, followed by larger forts, linked by a series of trenches and ramparts known as 'The Lines of Communication' which encircled the Cities of London and Westminster (Ref 3).

Modern (1900 – Present)

- 1.3.20 In the first half of the 20th century London was still expanding outwards; in a period of just twenty years it doubled in size (Ref 8). This reached as far as the dockyards in the east, with the remaining land developed in the 21st century when London reached its present extent. To better connect the expanding city, new arterial roads were built and the underground railway network expanded with new lines around the capital.
- 1.3.21 London was a target for German airships and airplanes, with the first air raid occurring in May 1915 (Ref 8). Military aerodromes were opened at Northolt and Croydon to combat this threat (*Ibid.*). Industry reorganised to supply the war-effort, including a large amount of munitions manufacturing. Economically, London prospered during the First World War and continued to be Britain's largest manufacturing base. The Second World War saw further bombing of London, namely the Blitz which lasted from September 1940 to May 1941, and the V1 flying bomb and V2 rocket attacks in 1944. The Blitz changed the landscape of the city, with many famous landmarks hit, including the Houses of Parliament and the Tower of London. Some areas were so badly damaged that they had to be almost entirely rebuilt, including the area close to Norman Road Field and the Crossness LNR, which was used as an area for releasing unused armaments towards the end of the Second World War (*Ibid.*).

1.4 Designated Heritage Assets

Summary

- 1.4.1 The historic environment 100m Study Area for the Proposed Scheme contains the following designated heritage assets, which abut or overlap with the 100m Study Area and/or fall within or overlap with the EIA Scoping Boundary, identified as:
- a. One UNESCO World Heritage Site, Maritime Greenwich, within the EIA Scoping Boundary;
 - b. 26 Scheduled Monuments, of which 12 are within the EIA Scoping Boundary;
 - c. Four Grade I Registered Park and Gardens, of which one is within the EIA Scoping Boundary;

- d. Two Grade II* Registered Park and Gardens, of which one is within the EIA Scoping Boundary;
- e. 18 Grade II Registered Park and Gardens, of which 16 are within the EIA Scoping Boundary;
- f. 83 Conservation Areas, of which 61 are located within the EIA Scoping Boundary;
- g. 71 Grade I Listed Buildings, of which 6 are within the EIA Scoping Boundary;
- h. 170 Grade II* Listed Buildings, of which 16 are within the EIA Scoping Boundary; and
- i. 1216 Grade II Listed Buildings, of which 116 are within the EIA Scoping Boundary.

London Borough of Bexley

- 1.4.2 The Proposed Scheme in Bexley largely runs through industrial and modern residential areas. The only designated heritage asset within the EIA Scoping Boundary is the Crossness Conservation Area, which centres on the Grade I listed Former Crossness Pumping Station (NHLE 1064241). The station itself, and two associated Grade II listed buildings, are beyond the 100m Study Area. This cluster of assets could be scoped in for further assessment following consultation and further review of the parameters of the Proposed Scheme, once these have been fixed for the DCO Application.
- 1.4.3 There are no World Heritages Sites, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, or listed buildings within the 100m Study Area.

London Borough of Barking and Dagenham

- 1.4.4 The 100m Study Area in Barking and Dagenham consists of three areas where transmission branches of the Proposed Scheme enter the area on the north bank of the Thames. This is a largely industrial area.
- 1.4.5 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, Conservation Areas, or listed buildings within the 100m Study Area.

Royal Borough of Greenwich

- 1.4.6 The EIA Scoping Boundary and 100m Study Area for the Proposed Scheme cross the Maritime Greenwich UNESCO World Heritage Site (WHS). The associated buffer zone for the Maritime Greenwich WHS extends further and is designed to signal the immediate visual and archaeological sensitivity of the surrounding landscape, in addition to protecting the WHS from development that would adversely impact upon the monuments visual setting and Outstanding Universal Value. The WHS is a heritage asset of very high value

and was inscribed in 1997 for its Outstanding Universal Value (OUV) in maritime, scientific, royal, and architectural cultural heritage, located within a single historic landscape, and containing several nationally important heritage assets. The area covered by the WHS was the centre of globally important developments in navigation and astronomy through the Royal Observatory Greenwich, where the Prime Meridian and Greenwich Mean Time originated, shaping global mapping and timekeeping. Designated assets within the WHS that are within the 100m Study Area and EIA Scoping Boundary include two Scheduled Monuments, Greenwich Palace (NHLE 1410710) and Queen's House (NHLE 1002060), plus the Grade I Registered Park and Garden (RPG) Greenwich Park (NHLE 1000174), which intersects with the 100m Study Area at the northwest corner of the RPG.

- 1.4.1 There are no Registered Battlefields within the 100m Study Area.
- 1.4.2 There are seven Conservation Areas within the 100m Study Area which crosses the Royal Borough of Greenwich. These all intersect with the EIA Scoping Boundary: Deptford High Street Conservation Area; Greenwich East Greenwich Conservation Area; Park Conservation Area; Royal Arsenal Conservation Area; Thames Barrier & Bowater Road; West Greenwich Conservation Area; and Woolwich Conservation Area.
- 1.4.3 There are five Grade I listed buildings within the 100m Study Area; The Church of St Alfege (NHLE 1358970) which is bounded on all sides by and which partly overlaps with the EIA Scoping Boundary, Gate Lodges at East Gate of Royal Naval College (NHLE 1358993), Royal Naval College, Queen Mary's Quarter (NHLE 1211384) which immediately abuts the EIA Scoping Boundary, Royal Naval College Southwest Building, King William's Quarter (NHLE 1211426) which immediately abuts the EIA Scoping Boundary and the Royal Naval College Gates, Gate Piers and Lodges to West Entrance (NHLE 1078973).
- 1.4.4 Four further Grade I listed buildings fall partly within the 100m Study Area or abut it: National Maritime Museum (NHLE 1211481), Royal Naval College Northeast Building, Queen Anne's Quarter (NHLE 1290044), Royal Arsenal Brass Foundry Royal Foundry (NHLE 1078956) and the Cutty Sark (NHLE 1079013).
- 1.4.5 There are eleven Grade II* listed buildings within the 100m Study Area, including two which partially overlap with the 100m Study Area. There are no Grade II* listed buildings within the EIA Scoping Boundary.
- 1.4.6 There are 102 Grade II listed buildings within the 100m Study Area, of which 15 are located within the EIA Scoping Boundary.

London Borough of Lewisham

- 1.4.7 There are no designated assets within the EIA Scoping Boundary.

- 1.4.8 Within the 100m Study Area there are no Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, or Grade II listed buildings.
- 1.4.9 There are two Conservation Areas within the 100m Study Area: Deptford Creekside and Deptford High Street & St Paul's Church.
- 1.4.10 One Grade I listed building is located partly within the 100m Study Area, namely, The Church of St Paul's (NHLE 1080003).
- 1.4.11 Near Deptford within the 100m Study Area, there are ten Grade II* listed buildings, mostly terraced dwellings on Albury Street within the Deptford High Street & St Paul's Church Conservation Area, and seven Grade II listed buildings. A further Grade II* listed building is located partly within the 100m Study Area.

London Borough of Southwark

- 1.4.12 There are no World Heritage Sites or Registered Battlefields, within the 100m Study Area.
- 1.4.13 Extending into the 100m Study Area and partially overlapping with the EIA Scoping Boundary is the Grade II Registered Park and Garden, Southwark Park (NHLE 1000838).
- 1.4.14 Extending into the EIA Scoping Boundary are 11 Conservation Areas: Bermondsey Street; Borough High Street; Edward III's Rotherhithe; St George's Circus; Liberty of the Mint; Thrale Street; Trinity Church Square; Union Street; Valentine Place; West Square; and Wilson Grove.
- 1.4.15 There are also two Grade II* and 17 Grade II listed buildings within the EIA Scoping Boundary.
- 1.4.16 There are four Scheduled Monuments located within the 100m Study Area within the London Borough of Southwark. These include a Medieval moated manor house, 43m west of Cathay House (NHLE 1001983), Abbey buildings, Bermondsey (NHLE 1001984), Remains of Winchester Palace, Clink Street and waterfront (NHLE 1002054), and The Globe Theatre (NHLE 1012806). Abbey Buildings, Bermondsey (NHLE 1001984) are located within the EIA Scoping Boundary.
- 1.4.17 Within the 100m Study Area are a further three Conservation Areas: King's Bench, St Mary's Rotherhithe and Yates Estate and Victory.
- 1.4.18 Also, within the 100m Study Area, there are a further nine Grade II* listed buildings and 149 Grade II listed buildings.
- 1.4.19 The Grade I Listed George Inn (NHLE 1378357) lies partially within the 100m Study Area.

London Borough of Tower Hamlets

- 1.4.20 The Proposed Scheme intrudes only a short distance into the Tower Hamlets borough, landing on the north bank in the Wapping Pierhead Conservation Area. There are no other designated assets within the EIA Scoping Boundary.
- 1.4.21 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, Conservation Areas, or of Grade I or II* listed buildings within the 100m Study Area.
- 1.4.22 There are 14 Grade II listed buildings within the Study Area, including wharfs and warehouses, reflecting the area's industrial and maritime heritage.

City of London

- 1.4.23 There are no World Heritage Sites or Registered Battlefields, within the 100m Study Area.
- 1.4.24 There are a total of 20 Scheduled Monuments located within the 100m Study Area within the City of London. These include Smiths' Wharf (NHLE 1001995), Vintners' Hall (NHLE 1002033), Painter Stainers' Hall (NHLE 1002030), Huggin Hill Roman bath house, 120m WNW of St James's Church (NHLE 1001981), Skinners' Hall, (NHLE 1002031), Tallow Chandlers' Hall, (NHLE 1002032), Dyers' Hall (NHLE 10020570), Armourers' and Brasiers' Hall (NHLE 1002056), Roman governor's palace (site of) (NHLE 1001997), Innholders' Hall (NHLE 1002028), Remains of St Pancras Church, Pancras Lane (NHLE 1001975), Roman amphitheatre, Guildhall Yard (NHLE 1013411) and Baynard's Castle, 78m south-west of St Benet Metropolitan Welsh Church (NHLE 1001965).
- 1.4.25 There are seven sections of the Scheduled Monument, London Wall, that have been identified within the 100m Study Area and include London Wall: remains of Roman wall and bastion, Goring Street (NHLE 1002049), London Wall: remains of Roman fort wall and east gate under Aldermanbury (NHLE 1002053), London Wall: remains of Roman and medieval wall from west end of All Hallows Church to 38 Camomile Street (NHLE 1002050), London Wall: section bounding All Hallows Churchyard (NHLE 1002067), London Wall: remains of Roman wall and conduit and medieval postern, Bloomfield House to site of Moor Gate (NHLE 1002051), London Wall: section of Roman wall within the London Wall underground car park, 25m north of Austral House and 55m north west of Coleman Street (NHLE 1018885), and London Wall: remains of Roman wall and bastion, Camomile Street (NHLE 1005547).
- 1.4.26 Of the 20 Scheduled Monuments, ten intersect with or are immediately adjacent to the EIA Scoping Boundary, namely Dyers' Hall (NHLE 10020570), Skinners' Hall, (NHLE 1002031), Roman governor's palace (site of) (NHLE 1001997), Vintners' Hall (NHLE 1002033), Innholders' Hall (NHLE 1002028), Remains of St Pancras Church, Pancras Lane (NHLE 1001975), Roman

amphitheatre, Guildhall Yard (NHLE 1013411), Armourers' and Brasiers' Hall (NHLE 1002056), London Wall: remains of Roman wall and conduit and medieval postern, Bloomfield House to site of Moor Gate (NHLE 1002051), and London Wall: remains of Roman and medieval wall from W end of All Hallows Church to 38 Camomile Street (NHLE 1002050).

- 1.4.27 There are two Registered Parks and Gardens located within the 100m Study Area: The Barbican, Grade II* (NHLE 1001668) and Finsbury Circus, Grade II (NHLE 1001259).
- 1.4.28 Within the EIA Scoping Boundary are seven Conservation Areas: Bank; Bow Lane; Bishopsgate; New Broad Street; Finsbury Circus; Guildhall; and Queen Street. There is one Grade I listed building, the Church of All Hallows (NHLE 1064632), two Grade II* and four Grade II listed buildings.
- 1.4.29 There are a further six Conservation Areas located within the 100m Study Area: Barbican and Golden Lane; Creechurch; Laurence Pountney Hill; St Helen's Place; St Paul's Cathedral; and Whitefriars.
- 1.4.30 There are 12 Grade I listed buildings within the 100m Study Area: Church of St Margaret (NHLE 1064634); Church of St James Garlickhithe (NHLE 1064669); Church of St Lawrence Jewry (NHLE 1064673); Guildhall (NHLE 1064675); Skinners Hall (NHLE 1064686); Church of St Mary Le Bow (NHLE 1064696); Bank of England (NHLE 1079134); Church of St Mary Aldermay (NHLE 1079145); Vintners Hall (NHLE 1180690); Guild Church of St Ethelburga the Virgin (NHLE 1191603); Church of St Michael Paternoster Royal (NHLE 1286707); and the Tower of Former Church of St Olave (NHLE 1359180).
- 1.4.31 A further three Grade I listed buildings partially overlap with the 100m Study Area: the Midland Bank (NHLE 1064598); the Church of St Helen (NHLE 1286458); and the Church of St Andrew by the Wardrobe (NHLE 1079148).
- 1.4.32 There are also 14 Grade II* and 86 Grade II listed buildings within the 100m Study Area. A further Grade II* listed building, National Westminster Bank including Lothbury Gallery (NHLE 1079136) lies partially within the 100m Study Area.

London Borough of Lambeth

- 1.4.33 The most notable heritage asset is the Grade I listed Lambeth Palace (NHLE 1116399), which dates back in parts to the 12th century. The Palace itself lies within the 100m Study Area, with the surrounding Grade II Registered Park and Garden (NHLE 1000818) extending into the EIA Scoping Boundary.
- 1.4.34 There are no World Heritage Sites, Scheduled Monuments, or Registered Battlefields, within the 100m Study Area.

- 1.4.35 There are ten Conservation Areas within the 100m Study Area: Albert Embankment; Lambeth Palace; Lambeth Walk and China Walk; Lower Marsh; Mitre Road and Ufford Street; Roupell Street; South Bank; Vauxhall; Walcot; and Waterloo.
- 1.4.36 A further Grade I listed building in the 100m Study Area is the Royal Festival Hall (NHLE 1249756).
- 1.4.37 Two Grade II* listed buildings are partially within the 100m Study Area: the Royal National Theatre (NHLE 12723234) and Waterloo Bridge (NHLE 127500).
- 1.4.38 There are also six Grade II* and 42 Grade II listed buildings within the 100m Study Area.

City of Westminster

- 1.4.39 There are no World Heritage Sites, Scheduled Monuments, or Registered Battlefields, within the 100m Study Area.
- 1.4.40 Within the EIA Scoping Boundary, there are 13 Registered Parks and Gardens. These are the Grade I Trafalgar Square (NHLE 1001362); the Grade II* Victoria Embankment Gardens (NHLE 1000844); and a further 11 Registered Parks and Gardens at Grade II: Warwick Square (NHLE 1000848); Dolphin Square Gardens (NHLE 1455668); Eccleston Square (NHLE 1000802); Victoria Tower Gardens (NHLE 1000845); Landscape To Churchill Gardens Estate (NHLE 1469043); The Grosvenor Estate: Chester Square (NHLE 1001675); The Grosvenor Estate: Belgrave Square (NHLE 1000792); The Grosvenor Estate: Eaton Square (NHLE 1000801); Pimlico Gardens (NHLE 1469085); St George's Square Garden (NHLE 1467523); and Portman Square And Manchester Square (NHLE 1000820).
- 1.4.41 Extending into the EIA Scoping Boundary are 24 Conservation Areas: East Marylebone, Haymarket, Regent Street, Chinatown, Westminster Abbey and Parliament Square, Lillington Gardens, Smith Square, Belgravia, Savoy, Stratford Place, Churchill Gardens, Adelphi, Millbank, Leicester Square, Pimlico, Regency Street, Vincent Square, Trafalgar Square, Covent Garden, Westminster Cathedral, Dolphin Square, Harley Street, St James's, and Soho.
- 1.4.42 Within the EIA Scoping Boundary are five Grade I listed buildings: Spanish Embassy (NHLE 1218320), The Royal Society of Arts (NHLE 1216787); Institute of Directors (NHLE 1225843); York Water Gate (NHLE 1237938); and the Statue of Charles I (NHLE 1357291). There are also 11 Grade II* and 81 Grade II listed buildings within the EIA Scoping Boundary.
- 1.4.43 Within the 100m Study Area are a further three Registered Parks and Gardens. These are the Grade I Hyde Park (NHLE 1000814) and St James's Park (NHLE 1000483); and the Grade II St James's Square (NHLE 1000833).

- 1.4.44 Also, within the 100m Study Area are a further seven Conservation Areas: Peabody Avenue, Whitehall, Royal Parks, Grosvenor Gardens, Charlotte Street West, Mayfair, and Strand.
- 1.4.45 Within the 100m Study Area are an additional 28 Grade I listed buildings: Church of St James the Less (NHLE 1066164); St James The Less Parish Rooms and Schools (NHLE 1066166); Cleopatra's Needle (NHLE 1066169); Churchyard Walls and Railings Surrounding Church of St Martin in the Fields on North, South, East and West Sides (NHLE 1066237); 13-23, Belgrave Square SW1 (NHLE 1066457); Church of St Paul Covent Garden (NHLE 1066487); 36, Craven Street Wc2 (NHLE 1066930); Numbers 1-9 Including Railings to North and East (NHLE 1209780); Numbers 10 to 18 (Including The Institute of Contemporary Arts); and Railings to North and West (NHLE 1209794); Statue of James II in Front of National Gallery West Wing (NHLE 1217629); Church of St Martin in the Fields (NHLE 1217661); ; Church of All Souls, Langham Place (NHLE 1221802); The Reform Club (NHLE 1225841); The Athenaeum (NHLE 1225842); 10, Portman Close W1 (NHLE 1227091); Royal Institute of British Architects Drawings Collection (NHLE 1227092); Home House (Courtauld Institute); (NHLE 1227105); Royal Opera Arcades (Including No 24 Charles II Street and No 5b Pall Mall); (NHLE 1235289); Stratford House, The Oriental Club (NHLE 1237107); Admiralty Arch, First Sea Lord's Residence and offices, Balustrades and Steps (NHLE 1238982); Duke of York Column and Steps (NHLE 1239383); All Saints Church and Numbers 7 and 8: All Saints Church House and Vestry, Including Railings to Basement Area and Attached Pair of Lamp Standards (NHLE 1239569); The Travellers Club (NHLE 1266151); The Nelson Monument (Nelson's Column); (NHLE 1276052); 12, Buckingham Street Wc2 (NHLE 1291053); 25-36, Belgrave Square SW1 (NHLE 1292018); Church of St Peters (NHLE 1357345); and Sainsbury Wing At The National Gallery (NHLE 1451082).
- 1.4.46 There are additionally five Grade I listed buildings partly overlapping with the 100m Study Area.
- 1.4.47 There are a further 82 Grade II* listed buildings located within the 100m Study Area, and an additional 15 Grade II* listed buildings partly falling within the 100m Study Area.
- 1.4.48 There are 667 Grade II listed buildings within the 100m Study Area, of which 81 are located within the EIA Scoping Boundary.

Royal Borough of Kensington and Chelsea

- 1.4.49 There are no World Heritage Sites, Scheduled Monuments, or Registered Battlefields within the 100m Study Area within this borough.
- 1.4.50 There are three Registered Parks and Gardens within the EIA Scoping Boundary, all designated at Grade II; Cadogan Place (NHLE 1000796), Royal

Hospital Chelsea and Ranelagh Gardens (NHLE 1000353), and Hans Place (NHLE 1000809).

- 1.4.51 There are three Conservation Areas that fall within the EIA Scoping Boundary or directly about it: Chelsea, Royal Hospital, and Thurloe/Smith's Charity.
- 1.4.52 There are four Grade I listed buildings located within the 100m Study Area: the Natural History Museum, Front Lodge and Gates, gate piers and railings (NHLE 1080675), the Victoria and Albert Museum (NHLE 1190187); and the Church of the Holy Trinity (NHLE 1265767), and The Royal Hospital Main Hospital Buildings Seven Three Storey Connected Blocks (NHLE 1226301), which is partially located within the 100m Study Area, however, the Historic England data point lies outside the 100m Study Area.
- 1.4.53 There are five Grade II* listed buildings within the 100m Study Area, one of which is located within the EIA Scoping Boundary; Wilbraham House and Wall to Right (NHLE 1358161). An additional one Grade II* listed building is located partially within the 100m Study Area.
- 1.4.54 There are 110 Grade II listed buildings within the 100m Study Area crossing the City of Westminster of which 38 are located within the EIA Scoping Boundary.

London Borough of Camden

- 1.4.1 The EIA Scoping Boundary does not intersect with Camden Council, however, the 100m Study Area does include heritage assets within the local authority area.
- 1.4.2 There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, or Grade I or II* listed buildings within the 100m Study Area within this Borough. There is one Conservation Area: Seven Dials (Covent Garden), and six Grade II listed buildings.

1.5 Non-Designated Heritage Assets

- 1.5.1 Within the 100m Study Area, there are a total of 6751 non-designated heritage assets, comprising 6448 non-designated archaeological assets and 303 non-designated historic buildings and structures.
- 1.5.2 Assets recorded on the GLHER across the 100m Study Area range in date from the Palaeolithic (1,000,000BC) to 11,000 BC/9,000 BC) to the modern period (1900 to present).
- 1.5.3 The 100m Study Area extends across a number of Archaeological Priority Areas (APA). APA are defined in Local Plans and highlight areas of known archaeological interest and enable local planning authorities to manage and

assist in the conservation of archaeological remains that might be affected by development.

- 1.5.4 Excluding the London Boroughs of Greenwich and Lambeth where the APA are still undergoing reviews and have not yet transitioned to the new system, the APA across Greater London are categorised into one of three tiers (Tier 1, Tier 2 and Tier 3), based on the presence of heritage assets of national importance and known or suspected archaeological evidence of varying sensitivity (Ref 9).
- 1.5.5 The APA and non-designated heritage assets located within, or extending into, the EIA Scoping Boundary are summarised below by Borough.

London Borough of Bexley

Archaeological Priority Areas

- 1.5.6 The Tier 3 APA: Thamesmead and Erith Marshes covers the entirety of the EIA Scoping Boundary within the LBB and comprises an area of reclaimed marshland, which was typified by localised areas of gravel highs interwoven by river channels and wetland environments. This marsh environment has been exploited since the prehistoric period, with occupation areas and evidence for human activity typically found on areas of higher ground or along the liminal edges of river channels. From the Mesolithic through to the Bronze Age, the area experienced repeated cycles of water inundation and seasonal flooding. Given this, rich peat deposits are found throughout the Thamesmead and marsh areas. During the Roman period, the low lying marshland remained a mix of farmland, heath and marshland until the mid-19th century, when increasing industrialisation led to development of sewage works, gas works, coal wharves and quarries. The significance of this area is particularly high for the prehistoric period, with the depth of the archaeological deposits varying greatly across the area. In some places peat deposits are buried at considerable depth, if not eroding out of the foreshore or very near surface (Ref 10).

Key Non-Designated Heritage Assets

- 1.5.7 There are a total of 35 non-designated archaeological assets and one non-designated historic building noted within the 100m Study Area. Of these, six non-designated heritage assets are recorded within the EIA Scoping Boundary, all of which are archaeological assets.
- 1.5.8 There are no non-designated heritage assets dated to the Palaeolithic, early medieval or medieval periods within the 100m Study Area.
- 1.5.9 A total of seven buried land surfaces which date to between the Mesolithic and Iron Age have been noted across the 100m Study Area, three of which are located within the EIA Scoping Boundary, as follows: a buried land surface dated to the Mesolithic period (GLHER 124456) has been identified within the

Crossness Nature Reserve; a buried land surface and peat deposits formed between the Mesolithic to Bronze Age (GLHER 135476) has been recorded at Kencot Close Business Park; and a peat deposit which likely formed during the prehistoric period has also been noted at Soham's Spot (GLHER 127030). These buried land surfaces are likely to extend across much of the EIA Scoping Boundary. One buried land surface in the wider 100m Study Area, approximately 70m southwest of the EIA Scoping Boundary at Troon Close, was noted to also show signs of Roman occupation but no evidence from the prehistoric period (GLHER 113418).

- 1.5.10 An area of Roman occupation (GLHER 126666) has been identified approximately 70m southwest of the EIA Scoping Boundary at Troon Close, across the same area as a prehistoric, buried land surface, which did not show signs of earlier occupation (GLHER 113418). The occupation site included ditches, pits, post holes, drainage ditches and a fence and nine findspots of Roman artefacts.
- 1.5.11 There are no non-designated heritage assets of early medieval or medieval date recorded within the 100m Study Area within the LBB. Evidence for post-medieval activity comprises a probable ditch (GLHER 108224) recorded within the EIA Scoping Boundary at Kencot Business Park. A further three post-medieval features have been noted beyond the EIA Scoping Boundary, within the 100m Study Area (GLHER 130184, GLHER138511, GLHER134437).
- 1.5.12 A total of 10 non-designated heritage asset of modern date have been recorded within the 100m Study Area, one of which is located within the EIA Scoping Boundary. Crossway Park is a late 20th century landscaped park which intersects with the EIA Scoping Boundary (GLHER 132774).
- 1.5.13 A single ditch (GLHER 136217) of an unknown date has been recorded within the EIA Scoping Boundary at Crossness Sewage Treatment Works.

Royal Borough of Greenwich

Archaeological Priority Areas

- 1.5.14 The APA: Royal Arsenal East encompasses the Study Area from Pettacre Close to the borough boundary with Bexley, and comprises the extensive area to the east of the historic core of the Arsenal. Prehistoric artefacts have been recovered from the peat that lies across much of the area, with Neolithic wooden platforms also identified at Belmarsh Prison. There is limited evidence to indicate that the area was utilised in the Iron Age and Roman period. Attempts to control flooding had varying levels of success, despite major breaches in the 17th century known as the 'Great Inundation'. Following the 1850s, the Arsenal expanded further and further eastwards, where the isolated land was suitable for the handling of explosives. The whole Arsenal was linked by a network of broad and narrow gauge railway. Archaeological evidence within this APA could help to improve understanding of the prehistoric

landscape and changing environment, as well as any features associated with the marshland environment at this time. Buried archaeological structures and artefacts associated with the Royal Arsenal would also be of significance (Ref 11).

- 1.5.15 The APA: Royal Arsenal West includes the Study Area from the Imperial Building to Pettacre Close. Prior to the development of the Arsenal, the area north of Beresford Gate and Plumstead Road was the site of a Roman period mixed rite cemetery, with Iron Age and Roman occupation to the immediate west on the site of the former power station. Following the establishment of the Royal Dockyard in 1513, other facilities quickly became established. In 1668, guns, carriages and stores at Deptford were moved to this site. The area known as the 'Warren' was purchased by the Crown in 1671 to produce and store shot and gunpowder. Shooting butts and proofing ranges were laid out to the east on the fringes of the expanse of marsh and the Royal Laboratories were transferred to the site in 1694. Significant expansion took place during the Napoleonic Wars with extra manufacturing capability being added, along with a major range of stores along the river edge from which supplies could be drawn in anticipation of ships' arrival for rearmament and taking supplies on board. The site was used during both World Wars before closing in 1964 (Ref 11).
- 1.5.16 The APA: Old Woolwich encompasses the Study Area from Woolwich Ferry South Pier to the Imperial Building. Old Woolwich was shaped by four centuries of association with maritime activity and the need to house a labour force and cater for passing trade and ship crews. This area was the only waterfront available for settlement to develop with archaeological evidence suggesting the earliest activity dates to the late prehistoric or Roman period, and the ferry crossing at Woolwich existing before the town of Woolwich developed from the later medieval period onwards. The area north of Woolwich High Street to the river developed as a series of lanes and paths with tightly packed houses and numerous inns. During the medieval period, it was a centre for the local pottery industry and in the 17th century, there was an active glasswork and a clay-pipe kiln in the area of the power station. The site of the 13th century manor of Southall is understood to have lain in the area towards the northwest end of Powis Street. It was later called the manor of Woolwich. Later the Salem Chapel was built on the site, around which a post-medieval burial ground was established (Ref 11).
- 1.5.17 The APA: Woolwich Dockyard covers the Study Area along Woolwich Church Street which is bounded by two roundabouts. In the north of the APA, adjacent to the River Thames the landscape likely comprising a mix of gravel beaches and marsh with back channels. Possible Bronze Age votive offerings have been recovered from the area. This environment was slowly reclaimed from the 12th century by a series of embankments. The long-standing Woolwich Ferry was established by at least 1308, as Woolwich developed as a fishing

port, prior to the founding of the Royal Dockyard by Henry VIII in 1513. In addition to the expected range of industries to be found in a dockyard, a tile manufacturing kiln was recorded between 1550 and 1640. In the early 17th century, the first double dock was built to enable one ship to be positioned behind another to increase the operational capacity of the site. The western side of the APA was not reclaimed for the development until after 1800. The boundary of the dockyard is today traced by Woolwich Church Street, extending along what is now Warspite Road down to Trinity Wharf. Substantial areas of the dockyard have since been developed or redeveloped but significant buried archaeological deposits will remain across the area including evidence along the foreshore (Ref 11).

- 1.5.18 The APA: Cox's Mount and Maryon Park comprises the park and a small section of the Study Area to the south of Woolwich Road. The land was part of Hanging Wood until 1891 when it was handed to the London County Council by the Maryon-Wilson Family. The area included a disused sand quarry and on the adjacent hill, the remains of a Roman settlement, interpreted as a hillfort, named Cox's Mount. Remains of buildings and a hearth may indicate occupation in the Roman period and may have been a continuation of an extensive Iron Age settlement, the majority of which has been lost to quarrying. Two possible Bronze Age barrows were also noted and may suggest further buried archaeological remains from this period survive within the APA (Ref 11).
- 1.5.19 The APA: Greenwich Peninsula and Foreshore encompasses the Study Area to the north of Woolwich Road from Lassell Street to the Royal Greenwich Trust School. Throughout prehistory the river edge would have varied as sea levels rose and fell over the millennia. As water levels rose, inundating land adjacent to the river, peat began to form with the marshland landscape, being exploited from the Neolithic period onwards. During the Bronze Age, trackways and platforms were constructed to make this environment more accessible. Peat continued to form throughout the Roman and early medieval periods before extensive drainage of the marshes created summer pasture. From the post-medieval period a comprehensive flood bank was constructed along the edge of the peninsula, known as Greenwich Marsh, along which windmills are documented to drain the marshes. The peninsula then developed as a series of working wharves and slips for industries needing access to the River Thames, such as general lighterage and the coal, tar and cement industries. Over the past 100-120 years most of the area has been successively raised with an accumulation of 3 m or more. The surviving archaeology of the area is therefore preserved where present but at depth (Ref 11).
- 1.5.20 The APA: Royal Greenwich comprises the Study Area between the University of Greenwich Campus and Maze Hill, with the area also covering the majority of the Maritime Greenwich World Heritage Site. During the prehistoric period, the area was likely used for the exploitation of natural resources as opposed

to occupation. A Roman road, Watling Street, ran across the southern side of this area from London to Dover, or traversed the area diagonally passing south of the National Maritime Museum, with a Roman Temple known to have been present within Greenwich Park, approximately 570m south of the EIA Scoping Boundary. A group of small early medieval burial mounds have also been noted within the park, approximately 500m south-east of the EIA Scoping Boundary. A manor house was also established within the area which owned an estate, possibly dating back to the early medieval period. During the early medieval and medieval periods several manorial estates were established before being transferred to the Crown in 1447. The area became a favourite place of Tudor royalty and was expanded as a royal residence known as Greenwich Palace (Scheduled Monument, NHLE 1410710). Britain's first true Renaissance building and arguably the most significant house in the country, is the Queens House (Scheduled Monument, NHLE 1002060), built by James I. The palace buildings had all been cleared by the 1730s as a prelude to the landscaping of the site and the spaces between the buildings. In 1749 the Royal Hospital Burial Ground was established, and the Dreadnought Library was constructed in the 1760s. After the hospital closed in the late-19th century, it was converted into a training facility for the Royal Navy who departed the site in 1998 (Ref 11).

- 1.5.21 The APA: Greenwich Town extends across the Study Area from the east bank of Deptford Creek to the University of Greenwich Campus, including part of the Maritime Greenwich World Heritage Site. At depth there was an ancient river that ran east-west under the present-day train station and across the north end of Greenwich Park. During prehistory the marshland would have given way to scrub and tree cover further inland. Bronze Age period peat has been recorded from Greenwich Reach but direct evidence for occupation in the Bronze Age to Roman periods has been limited to occasional finds. During the early medieval period, industry and settlement are known to have been located within the APA. The development of the royal residence in the 12th century can be seen to have had a huge effect upon the development and prosperity of the town. There was a strong pottery and tile industry within the region and, based on comparative evidence kilns may have been established at the margins of the settlement. Whilst the shoreline would have been developed for maritime industries, the riverbank began to be continuously pushed north as phases of land reclamation occurred, in part driven by the need to accommodate bigger and more numerous vessels (Ref 11).
- 1.5.22 The APA, Area 1: Deptford comprises the Study Area north-west of Deptford Creek. In this area, the gravel was capped by Brickearth that has been extensively excavated for the pottery, tile and brick-making industries. Archaeological evidence for prehistoric and Roman activity is scarce. The earliest evidence for settlement of the area appears to have begun during the early medieval period when Deptford Strand developed on the banks of the

River Thames, north of the present-day St Nicholas Church. Deptford is not named in the Domesday Book of 1086 but formed part of the manor of West Greenwich. During the medieval period revetments were developed along the foreshore to enable boats to be loaded and off-loaded. The development of ship building and repair facilities, to the immediate west of the area, began under Henry VII and was continued by Henry VIII, who opened a Royal Dockyard at Deptford, which closed in 1868. In the seventeenth century the Honourable East India Company established thriving docks between the Royal Dockyard and Deptford Creek, before its closure and redevelopment for the world's first large scale, Deptford Power Station, in 1887-9 (Ref 11).

Key Non-Designated Heritage Assets

- 1.5.23 There are a total of 467 non-designated heritage assets identified within the 100m Study Area. Of these, 119 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological assets and historic buildings.
- 1.5.24 There are five non-designated archaeological assets dated to the Palaeolithic period within the 100m Study Area, three of which are located within the EIA Scoping Boundary. Two of those reported within the EIA Scoping Boundary appear to refer to the same assemblage of faunal remains and were recovered during sewer works within St Alfege Park (GLHER 99207, GLHER 80715). Upper Palaeolithic deposits (GLHER 95525) were identified between Bugsby's Way and Woolwich Road. These Late Devensian sediments overlay the floodplain gravel (Shepperton Gravel).
- 1.5.25 A total of 11 non-designated archaeological assets dated to the Mesolithic have been noted within the 100m Study Area, the most notable being layers, buried land surfaces and palaeochannels which intersect with the EIA Scoping Boundary. Mesolithic deposits were identified between Bugsby's Way and Woolwich Road (GLHER 146865, GLHER 135902), alongside a channel of the Thames floodplain, which likely existed during the Mesolithic and Neolithic periods (GLHER 150532) and a Mesolithic to Bronze Age buried land surface (GLHER 135092). A Mesolithic to Neolithic buried land surface has also been noted within the EIA Scoping Boundary to the north of Woolwich Crown Court (GLHER 143386).
- 1.5.26 The Neolithic period is represented by ten non-designated archaeological assets, 9 of which are buried land surfaces. Of these buried land surfaces, four are noted within the EIA Scoping Boundary, namely within an industrial estate directly south of Pettman Crescent (GLHER 112551), between Bugsby's Way and Blackwall Lane (GLHER 95058), to the north of Woolwich Crown Court (GLHER 103274), and at the intersection of Commercial Way and Bugsby's Way (GLHER 134295). All three also provided environmental evidence from the Bronze Age period. The Neolithic period is also the first within the London Borough of Greenwich to contain evidence of cut features,

with a segmented ditch identified north of Duke of Wellington Avenue, 10 m north of the EIA Scoping Boundary, with associated features likely within the area (GLHER 219802).

- 1.5.27 A single Bronze Age buried land surface has been identified within the 100m Study Area, which intersects with the EIA Scoping Boundary between Bugsby's Way and Woolwich Road, in the same area as the Mesolithic land surfaces were identified (GLHER 120017).
- 1.5.28 There are six non-designated archaeological assets within the 100m Study Area dated to the Iron Age, four of which intersect with the EIA Scoping Boundary. These include a layer between Bugsby's Way and Woolwich Road across the same areas as the Mesolithic and Bronze Age layers (GLHER 148210) and a water channel to the north of Woolwich Crown Court, noted alongside Mesolithic and Neolithic land surfaces (GLHER 142369). Evidence of occupation activity has been noted at the Royal Arsenal, with an early Iron Age enclosure identified within the EIA Scoping Boundary to the south of the Royal Military Academy (GLHER 217788). An extensive area of Iron Age occupation, possibly a late Iron Age *oppidum* or enclosed settlement, superseded this along the foreshore from Waterfront Leisure Centre to the Royal Military Academy. Evidence for the *oppidum* consists of a large Iron Age double-ditched enclosure identified from large v-shaped ditches (GLHER 121233). Given this, further cut features from this period are likely to exist.
- 1.5.29 Seven non-designated archaeological assets dated broadly to the prehistoric have been recorded within the 100m Study Area, three of which are located within the EIA Scoping Boundary. A buried prehistoric land surface has been noted within EIA Scoping Boundary at Abbots Close (GLHER 150008). Given the number of land surfaces dated to the prehistoric periods, it is expected that deposits will extend across much of the EIA Scoping Boundary within the London Borough of Greenwich. Further evidence of occupation has been noted alongside the aforementioned buried land surface, (GLHER 105091, GLHER 96215). This included a timber feature which was partially excavated and highlights the potential for waterlogged and peat deposits to preserve organic material across the former marshland.
- 1.5.30 A total of 25 non-designated archaeological assets have been identified dated to the Roman period within the 100m Study Area. Five have been noted within the EIA Scoping Boundary, three of which are isolated findspots. The alignment of Watling Street, an important Roman road leading from London to Rochester, is noted to have crossed the EIA Scoping Boundary to the south of Alfege Park (GLHER 120853). A Roman ditch has been recorded within the EIA Scoping Boundary to the south of the Royal Military Academy, within an area of known extensive Iron Age occupation, suggesting continued use of the area (GLHER 213679). On the edge of the 100m Study Area, a Roman cemetery has been identified around Woolwich Station (GLHER 105351,

GLHER 108482, GLHER 109259). The cemetery consists of both cremations and inhumations, and the extent of the cemetery is unknown, thus it may extend towards the EIA Scoping Boundary.

- 1.5.31 There are 11 non-designated archaeological assets dated to the early medieval period within the 100m Study Area, four of which are noted within the EIA Scoping Boundary, one of which is an isolated findspot. An area of former woodland, named Hanging Wood, which was once part of the Manor of Charlton, is noted within the EIA Scoping Boundary, encompassing a large area to the south including Maryon Park and the surrounding developments (GLHER 221688). The early medieval settlement of Greenwich (GLHER 121015) is recorded extending across parts of the EIA Scoping Boundary, encompassing much of the University of Greenwich. The cemetery related to this settlement has been identified and is included within the Scheduled Monument which comprises the area (NHLE 1410710). The early medieval settlement of Deptford Green is also recorded, having been located across the EIA Scoping Boundary, extending from Deptford Station to the foreshore in the north (GLHER 99494). The settlement is known from documentary evidence but buried archaeological features may survive within the MAP Sites across both the London Borough of Greenwich and Lewisham.
- 1.5.32 A total of 48 non-designated archaeological assets of medieval date have been identified within the 100m Study Area, 21 of which are located within the EIA Scoping Boundary. The most notable of these relate to settlement of the area and ceramic industries, including a medieval boundary ditch recorded to the north of Duke of Wellington Avenue (GLHER 219804), which lies just west of the remains of a medieval building and clay pipe kiln that also intersects with the EIA Scoping Boundary (GLHER 122533, GLHER 145256, GLHER 100220). Another example of medieval industry was encountered where two adjacent kilns, one producing earthenware and the other stoneware, were excavated at Waterfront Leisure Centre (GLHER 131395). Within the EIA Scoping Boundary at Alfege Park, a medieval post hole (GLHER 96343) was noted which may indicate an area of occupation, which may extend into the MAP Site. Medieval occupation (GLHER 146938) was also recorded at Woolwich from documentary evidence, around Waterfront Leisure Centre, and within St Mary's Gardens where the medieval Church of St Lawrence was located (GLHER 107358, GLHER 111121). Adjacent to this and also within the EIA Scoping Boundary, a medieval inhumation was encountered (GLHER 137683).
- 1.5.33 There are 262 post-medieval non-designated archaeological assets and 23 non-designated historic buildings and structures within the 100m Study Area, 61 of which are noted within the EIA Scoping Boundary. Five of these relate to wrecks, whilst 26 refer to findspots. Two post-medieval burial grounds are recorded within the EIA Scoping Boundary, namely a Tudor cemetery at St Alfege's Church, which served the settlement at Greenwich (GLHER 136583)

and the burial ground for Greenwich Hospital, which served the Royal Navy and was located at the present Devonport House (GLHER 144021). Further elements of the settlement and maritime area have been identified. A number of post-medieval features, including pits, post holes and soakaways, have been noted extending into the EIA Scoping Boundary at St Alfege Park, which would have served the settlement (GLHER 98220, GLHER 98000). Evidence of continued occupation within the early medieval and medieval settlements at Woolwich has been noted in the form of a public house, once located at Waterfront Leisure Centre (GLHER 122919), and St Mary's Gardens where pits were recorded within the churchyard (GLHER 140377). An occupation area has also been identified within the EIA Scoping Boundary along Stockwell Street, comprising footings and road metalling likely associated with 17th century shops known to have been present at this location (GLHER 98705).

- 1.5.34 Evidence of industry has been noted across the Greenwich Peninsula and Foreshore, with a buried soil horizon of post-medieval date recorded extending into the EIA Scoping Boundary between Woolwich Road and Bugsby's Way (GLHER 136804) and a post-medieval floor and yard which appears to be industrial in nature (GLHER 127670, GLHER 100094), possibly part of a kiln site (GLHER 95348). Associated demolition debris was also noted (GLHER 101037), as was a boundary wall which terminates within the EIA Scoping Boundary to the southwest of Pavillion Square (GLHER 120826). A workhouse on the periphery of this industrial area was present partially within the EIA Scoping Boundary along Hazel Lane (GLHER 149851). A second possible industrial area was noted within the EIA Scoping Boundary at Wellington Park with a late post-medieval wall and structure excavated (GLHER 120351). To the south of this, also within the EIA Scoping Boundary, evidence of structures related to industry were noted (GLHER 104547, GLHER 125045, GLHER 97560). Evidence of maritime activity within the EIA Scoping Boundary comes in the form of flood defences along Dowells Street (GLHER 105834), and a wharf noted at Bell Water Gate (GLHER 99829). Elements of the Royal Arsenal which were east of the docks has been identified within the EIA Scoping Boundary to the west of Pettacre Close, observed during a watching brief (GLHER 111907), whilst a military academy was once present within Artillery Square (GLHER 119919).
- 1.5.35 A total of 14 modern non-designated archaeological assets and 32 non-designated built heritage assets are recorded within the 100m Study Area, eight of which lie within the EIA Scoping Boundary, four being archaeological and four being historic buildings. One of the non-designated archaeological assets comprises a wreck which intersects with the EIA Scoping Boundary within the River Thames (GLHER 227138). Two further assets relate to modern parks and open spaces, the Royal Arsenal Gardens (GLHER 94820), and Birchmere Park (GLHER 151663). An early 20th century blacksmith workshop has also been noted within the EIA Scoping Boundary along Telcon

Way (GLHER 112674) but is now demolished, whilst an air raid shelter which may survive has been recorded to the north of New Warren Lane (GLHER 137584).

- 1.5.36 Thirteen non-designated archaeological assets of an unknown date have been recorded within the 100m Study Area, one of which is noted within the EIA Scoping Boundary. This asset consists of a well, located at Stockwell Street (GLHER 132648).

London Borough of Lewisham

Archaeological Priority Areas

- 1.5.37 The Tier 1 APA: Deptford Dockyard and Sayes Court covers the sections of the Study Area which run along Sayes Court Street. The APA comprises one of the earliest royal dockyards in England, having been founded in 1513, and contains the only surviving example of a Tudor storehouse in England. The APA will also contain buried remains and archaeological evidence relating to the development of the dockyard from its foundation in the 16th century through to its closure in the 19th century. The APA also has the potential to contain archaeological remains associated with the medieval castle built by Gilbert de Magminot and the medieval manor and later post-medieval manor of Sayes Court. Evidence of the famous gardens laid out by John Evelyn in the 17th century and their evolution over time may also survive. The deep alluvial deposits and river gravels underlying the APA are known to contain well-preserved archaeological remains and environmental evidence, with evidence dating to as far back as the Palaeolithic. Meanwhile, the deep alluvium recorded in the northern part of the APA has the potential to contain archaeological remains from all periods (Ref 12).
- 1.5.38 The Tier 2 APA: Lewisham Riverside Settlements borders the Borough of Greenwich, comprising the Hughesfield Estate and area to the south of Creek Road. This area lies on the Kempton Gravels which have the potential to contain rare Palaeolithic remains. Mesolithic, Neolithic and Bronze Age finds have been recorded within the APA, particularly around Deptford Creek. Waterlogged deposits are also known in the area around the creek which have the potential to preserve rare organic material and environmental remains. The proposed alignment of the Roman road known as Watling Street passes through the northern part of the APA and linked *Londinium* with the south-east and the port of Dover. Remains associated with the road may survive within the APA, such as roadside settlements and burials, with a number of Roman cremation burials recorded within the APA. The settlements of Deptford and Lewisham have been continually occupied since the early medieval period, while Catford has been occupied since at least the 13th century. These settlements have the potential to contain archaeological deposits associated with medieval and post-medieval occupation (Ref 12).

- 1.5.39 The Tier 3 APA: Thames Gravel Terraces and Alluvial Floodplain comprises the remainder of the Study Area which lies within Lewisham, spanning from the Hughesfield Estate to the borough boundary with Southwark. This APA was extensively developed during the 19th and early 20th centuries, with more recent archaeological deposits disturbed in this area. However, the deep alluvial deposits and river gravels underlying this development retain a significant potential to contain well-preserved archaeological remains and environmental evidence. The gravel terraces have the potential to contain Palaeolithic remains, whilst the deep alluvium recorded in the northern part of the APA has the potential to contain archaeological remains from all periods. The alluvium and peat deposits in this area will contain waterlogged deposits which could preserve organic material and environmental remains. The Naval victualling yard in the north-eastern part of the APA will contain archaeological evidence of the mills, factories, storehouses and docks which were located in this area during the 17th to 20th centuries. During the four centuries of its operation, the yard housed a variety of different storehouses, docks, mills, bakeries, butchers and breweries (1.6Ref 12).

Key Non-Designated Heritage Assets

- 1.5.40 There are a total of 35 non-designated archaeological assets and six non-designated historic buildings noted within the 100m Study Area. Of these, nine non-designated archaeological assets are recorded within the EIA Scoping Boundary.
- 1.5.41 There are no non-designated heritage assets dated to the Palaeolithic, Mesolithic, Neolithic, Bronze Age or Iron Age periods within the 100m Study Area.
- 1.5.42 Three non-designated archaeological assets dated to the Roman period have been noted within the 100m Study Area, comprising two findspots, thought to refer to the same artefact (GLHER 110850, GLHER 82563). The Roman Road of Watling Street (GLHER 120853) is recorded as running approximately 60m south of the EIA Scoping Boundary.
- 1.5.43 Two early medieval non-designated heritage assets have been recorded within the 100m Study Area, with the early medieval settlement of Deptford Green stretching from Deptford Station to the foreshore, including partially within the EIA Scoping Boundary (GLHER 99494). The settlement is known from documentary evidence, but features may survive within the London Borough of Greenwich and Lewisham. The potential for human and environmental evidence was also noted approximately 35 north of the pipeline at Clayton Drive where an early medieval layer was revealed (GLHER 129798).
- 1.5.44 Three non-designated archaeological assets dated to the medieval period have been noted within the 100m Study Area, all of which lie within the EIA

Scoping Boundary. Two are findspots, thought to refer to the same artefact (GLHER 140367, GLHER 83829) found at the Creek Road and Deptford Church Street intersection, and the medieval settlement of Deptford Green (GLHER 120023). The settlement was located to the northeast of the early medieval settlement of the same name, located between the roads Deptford Green and Stowage, and the River Thames. The settlement is thought to have moved north in an attempt to repopulate the areas adjacent to the Church of St Nicholas.

- 1.5.45 There are 25 non-designated archaeological assets of a post-medieval date within the 100m Study Area, three of which extend within the EIA Scoping Boundary. These include the Grand Surrey Canal which crosses the EIA Scoping Boundary at Deptford Landings (GLHER 99474) and a public house (GLHER 131115) which is also located within the EIA Scoping Boundary along Watergate Street. Deptford Park (GLHER 139704) bounds the EIA Scoping Boundary and was developed from 1884. Whilst located beyond the EIA Scoping Boundary, approximately 15m to the south, wall footings and a boundary wall have been identified and it is possible that the structure extends towards the EIA Scoping Boundary (GLHER 147447).
- 1.5.46 A single modern non-designated archaeological asset has been recorded within the 100m Study Area extending into the EIA Scoping Boundary. An early 20th century waste disposal site has been recorded along the route of the Surrey Canal Road, within the EIA Scoping Boundary around Blackhorse Business Park (GLHER 110366).
- 1.5.47 Approximately 90m south of the EIA Scoping Boundary at Laban Centre for Contemporary Dance, a layer of an unknown date has been recorded within the 100m Study Area which comprises Holocene alluvium of pre-18th century flood deposits (GLHER 136547). No further heritage assets of an unknown date have been identified.

1.5.48

London Borough of Southwark

Archaeological Priority Areas

- 1.5.49 The Tier 1 APA: North Southwark and Roman Roads covers the majority of the EIA Scoping Boundary within the Borough of Southwark, excluding the area around St George's Circus and much of the area around Southwark Park, neither of which fall within an APA. During the prehistoric period, the River Thames was wider and shallower and Southwark consisted of low-lying marshes separated by braided river channels, interspersed with a number of large sand and gravel islands. Any ground disturbance within the APA has potential to encounter archaeological remains. Foundations of former buildings and substantial structures, such as elements of the Roman town, have been uncovered while remains of earlier phases of Bermondsey Abbey,

Southwark Cathedral, Suffolk Place and the Bishop of Winchester's Palace may survive. Well-preserved timber structures also survive in deeper waterlogged deposits. Burials associated with Bermondsey Abbey and the Southwark workhouses would provide information on the medieval and post-medieval ecclesiastical and secular populations of the area. There is also still much to be learnt about the nature and extent of settlement along the river and in the APA area during the prehistoric, Roman and Saxon periods. The River Thames, Bermondsey Lake and the whole floodplain area are of geoarchaeological interest and archaeological work here has the potential to add to our knowledge of the Holocene evolution of the London area and the rising level of the Thames (Ref 13).

Key Non-Designated Heritage Assets

- 1.5.50 There are a total of 2172 non-designated archaeological assets and 101 non-designated historic buildings noted within the 100m Study Area. Of these, 461 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both buried archaeological remains and historic buildings.
- 1.5.51 There are no Palaeolithic non-designated heritage assets noted within the 100m Study Area. The Mesolithic is represented by 37 non-designated archaeological assets, seven of which are located within the EIA Scoping Boundary. All but two of the non-designated archaeological assets noted within the 100m Study Area consist of findspots of stone and bone tools as well as burnt flint. The other two appear to refer to the same asset, a waterlain layer, dated to the Mesolithic and Neolithic periods, within which pottery and worked flint were recovered (GLHER 125319, GLHER 85253). The layer was identified within the EIA Scoping Boundary at the roundabout of Jamaica Road and Lower Road. Five of the findspots noted within the EIA Scoping Boundary were found within this layer (GLHER 85253, GLHER 88340, GLHER 91165, GLHER 94407, GLHER 81980), alongside a Neolithic pot (GLHER 84013). The remaining findspot was noted within the EIA Scoping Boundary to the south of Abbey Street (GLHER 80269). The findspots noted within the wider 100m Study Area consist of isolated finds of worked flint scattered throughout the borough.
- 1.5.52 A total of 42 Neolithic non-designated archaeological assets have been reported within the 100m Study Area, 13 of which are located within the EIA Scoping Boundary, 11 of which are findspots of flint artefacts and pottery. A buried land surface was noted within the EIA Scoping Boundary at the intersection of Bear Lane and Price's Street (GLHER 137733), whilst a second buried land surface was recorded approximately 40m southwest of the EIA Scoping Boundary, within which a hearth and possible occupation site was noted (GLHER 110302). Other areas of possible Neolithic occupation have been noted within the EIA Scoping Boundary at Castle Yard where pits and

stake holes were excavated (GLHER 104334), alongside a number of Neolithic findspots (GLHER 86043, GLHER 83894, GLHER 93169), and approximately 75m southeast of the EIA Scoping Boundary (GLHER 108576). The remaining findspots within the EIA Scoping Boundary are located in small clusters alongside later dated material and features.

- 1.5.53 Evidence of Bronze Age activity is represented by 40 non-designated archaeological assets located within the 100m Study Area, five of which are situated within the EIA Scoping Boundary. Three of non-designated archaeological assets consist of findspots located in small clusters alongside both earlier and later material. A late Bronze Age structure was found alongside Iron Age and Roman features within the EIA Scoping Boundary along Borough High Street (GLHER 126328), whilst a late Bronze Age ditch was noted within the EIA Scoping Boundary at Limasol Street was sealed by sediments from an Iron Age flooding event (GLHER 136876). Whilst located beyond the EIA Scoping Boundary, a number of occupation areas dated to the Bronze Age are located in proximity to the EIA Scoping Boundary and therefore associated features may extend into it. This includes a platform and boundary ditch noted approximately 5m south of the EIA Scoping Boundary close to Coroner's Court (GLHER 119934) and a late Bronze Age round house situated approximately 5m west of the EIA Scoping Boundary at Maiden Lane (GLHER 137201). A total of eight Bronze Age buried land surfaces have been recorded across much of the 100m Study Area, the closest being approximately 20m north of the EIA Scoping Boundary along Tower Bridge Road (GLHER 125716), which indicates that further previously undisturbed layers may survive within the EIA Scoping Boundary itself.
- 1.5.54 Within the 100m Study Area, 40 non-designated archaeological assets of an Iron Age date have been recorded, seven of which lie within the EIA Scoping Boundary. Those within the EIA Scoping Boundary includes two isolated findspots. Along Borough High Street, a late Iron Age layer was identified which sealed earlier Bronze Age features (GLHER 106855) and a buried soil horizon was recorded within the EIA Scoping Boundary to the south of Abbey Street (GLHER 99864). Within the route of the Transmission Trunk Main, a large Iron Age water channel and shallow pits and ditches were noted within the EIA Scoping Boundary along Bridewain Street, demonstrating use of the marshland (GLHER 118658, GLHER 116805). Features were also found within the EIA Scoping Boundary to the north of Grange Road (GLHER 138723). A further four buried elements of the Iron Age landscape have been recorded within the 100m Study Area, suggesting further survival of environmental evidence is possible within the EIA Scoping Boundary. Evidence of occupation activity just beyond the EIA Scoping Boundary has been noted 10m west of the EIA Scoping Boundary along Borough High Street where inhumations were encountered which may be part of a larger burial area

which extends into the MAP Site (GLHER 125293, GLHER 117440). A waste disposal site was also in the vicinity (GLHER 111997).

- 1.5.55 There are 47 non-designated archaeological assets dated to the prehistoric period within the 100m Study Area, nine of which lie within the EIA Scoping Boundary, including four isolated findspots. Prehistoric elements of the braided river system and marshland are shown to survive within the EIA Scoping Boundary, with a prehistoric lake noted within the EIA Scoping Boundary along Tower Bridge Road (GLHER 137384) and a water channel identified along Borough High Street (GLHER 149400). Areas of occupation dated to the general prehistoric have been noted within the EIA Scoping Boundary beneath the footprint of Bermondsey Abbey (GLHER 125888), along Redcross Way (GLHER 111465), and along Lower Road TM58 (GLHER 114698).
- 1.5.56 Extensive research of the Roman occupation of Southwark has been undertaken and as such, a total of 833 non-designated archaeological assets have been identified, 140 of which are located within the EIA Scoping Boundary. Of those 140 assets, 87 are findspots which are regularly distributed throughout the EIA Scoping Boundary and suggest a high potential to identify further Roman finds across the entire 100m Study Area. As noted by the Archaeological Priority area discussed in the previous section, Southwark was crossed by an arterial network of roads, with evidence for eight of these found within the EIA Scoping Boundary: roughly following Great Dover Street (GLHER 120853); crossing Borough High Street (GLHER 96170, GLHER 116582); at Redcross Way (GLHER 130741, GLHER 231992); crossing Trinity Street and Grover Dover Street (GLHER 115681, GLHER 112549); and crossing Harper Road (GLHER 232057). A number of occupation areas consisting of building remains have been identified within or in proximity to the EIA Scoping Boundary: Disney Place where a Roman building and occupation deposits have been uncovered (GLHER 229965); St Saviour's where a tessellated floor was revealed (GLHER 143449); along the west side of Borough High Street where Roman buildings, including a blacksmiths workshop, and associated features have been identified (GLHER 122263, GLHER 105302, GLHER 113652, GLHER 134673, GLHER 101974, GLHER 115681, GLHER 99518, GLHER 133635, GLHER 151660, GLHER 150480, GLHER 220282); in proximity to Harper Road where a possible timber roadside building was uncovered (GLHER 211081); along the east side of Borough High Street where a building likely associated with the afore mentioned buildings was noted within the EIA Scoping Boundary (GLHER 143685); along Redcross Way where Roman buildings including a shop were uncovered (GLHER 106745, GLHER 114392, GLHER 124045, GLHER 136150); along Park Street where mosaics and a building have been recorded (GLHER 127895, GLHER 101707); and along Stevens Street (GLHER 119133).

- 1.5.57 Other occupation features include Roman pits which were found sealed by later deposits within the EIA Scoping Boundary at Union Street (GLHER 104051, GLHER 109540), a possible road or buried land surface also along Union Street (GLHER 99732), a buried soil horizon to the east of Bermondsey Street (GLHER 141063), and a wooden platform thought to be a wharf which is located adjacent to a hypocaust system along Bank End (GLHER 120347, GLHER 121173). A possible iron smelting site has been noted within the EIA Scoping Boundary to the south of Abbey Street (GLHER 147292). Burials have also been noted within the EIA Scoping Boundary at Bricklayers Arms Roundabout (GLHER 148318), at the intersection of Union Street and Borough High Street (GLHER 118854), to the southwest of Trinity Street (GLHER 118181), and to the south of Park Street (GLHER 96308). A possible religious site has been noted within the EIA Scoping Boundary along Borough High Street (GLHER 150803) and an area identified as likely to contain features related to the Roman waterfront has been noted crossing Redcross Way, Park Street, Cathedral Street and Stoney Street (GLHER 126917).
- 1.5.58 The location of the reported non-designated archaeological assets from the Roman period reflects the boundary of the Roman settlement at Southwark and so perhaps contains the highest potential within the borough, however, activity almost certainly occurred on the periphery, as reflected by the distribution of findspots so remains from this period may also exist to the east and west.
- 1.5.59 A total of 57 non-designated archaeological assets have been recorded within the 100m Study Area, 22 of which are located within the EIA Scoping Boundary. Sixteen of these are findspots, with two clusters noted at Abbey Street; both locations likely relating to early medieval activity at what developed into the scheduled monument, Bermondsey Abbey (NHLE 1001984). Features related to this activity have been noted within the aforementioned location and include a boundary ditch (GLHER 104017), a drain (GLHER 103418) and a pit, hearth and burial (GLHER 136680). Directly north of Stevens Street within the EIA Scoping Boundary, an early medieval burial has also been recorded, suggesting that further burials could be located within EIA Scoping Boundary between the two known inhumation locations (GLHER 104814).
- 1.5.60 Whilst no further evidence of occupation has been identified within the EIA Scoping Boundary, it has been noted in the 100m Study Area, approximately 40m west of the EIA Scoping Boundary at Lucy Brown House (GLHER 104618, GLHER 121986), 100m east of the EIA Scoping Boundary at Cathedral Street (GLHER 146913), and 15m southwest of the EIA Scoping Boundary to the south of Park Street (GLHER 128369), suggesting occupation occurred on the banks of the River Thames extending down to Borough, possibly extending into the EIA Scoping Boundary.

- 1.5.61 Within the 100m Study Area, 272 non-designated archaeological assets have been recorded, with 62 of these noted within the EIA Scoping Boundary. Of those within the EIA Scoping Boundary, 36 consist of findspots which have been recovered from across the EIA Scoping Boundary, although the majority were found in the vicinity of Bermondsey Abbey (NHLE 1001984). Ancillary buildings related to the abbey have also been noted in the vicinity, namely a grange within the EIA Scoping Boundary to the south of Grange Yard (GLHER 105182), and a windmill also located within the EIA Scoping Boundary to the south of Abbey Street (GLHER 104926). A buried land surface related to Bermondsey Abbey was noted extending beyond the scheduled monument to the east and west of Tower Bridge Road (GLHER 127854) and medieval features including walls, foundations and a floor surface were uncovered extending into the EIA Scoping Boundary were likely ancillary features of the Abbey (GLHER 135015, GLHER 106397).
- 1.5.62 Saint Mary Magdalene Churchyard is noted within the EIA Scoping Boundary (GLHER 118040). Spanning to the east of Park Street, Winchester Palace is noted to have extended (GLHER 127717) with this area notably larger than the scheduled remains. Other notable locations where buildings have been identified include brick foundations, possibly part of Suffolk Place were noted within the EIA Scoping Boundary along Borough High Street (GLHER 107174), whilst structural elements of an inn dating to the medieval period were found in a 19th century building within Tower Bridge Road (GLHER 113283). Within the EIA Scoping Boundary to the north of Stevens Street, a medieval burial and vault were identified (GLHER 106633), whilst along Great Dover Street, a medieval cemetery has been noted, the extent of which is unknown (GLHER 95581). A chapel is noted directly north of the graveyard, also within the route of the Transmission Trunk Main (GLHER 115991). A medieval church which predates St George the Martyr was excavated within the churchyard of the present church (GLHER 127465).
- 1.5.63 Located within the EIA Scoping Boundary around Disney Place are medieval foundations of Brandon Place (GLHER 229986). Evidence of industry has been found in the form of quarries surrounding Borough High Street (GLHER 116472), wooden structures and waste leather deposits at Soham's Spot (GLHER 143527), with possibly related waste deposits also noted to the south at the Tate Modern (GLHER 101527). A number of medieval watercourses have also been identified within the EIA Scoping Boundary, along Union Street (GLHER 114693), at Soham's Point (GLHER 127862), and east of Park Street where a floor and revetment were also noted (GLHER 99041).
- 1.5.64 There are a total of 765 non-designated archaeological assets and 90 non-designated historic buildings dated to the post-medieval period noted within the 100m Study Area. Of these, 180 non-designated heritage assets, both archaeological and built heritage, are located within the EIA Scoping Boundary, 79 of which are findspots. Post-medieval activity continued on the

site of Bermondsey Abbey after the Reformation, with a Tudor manor house constructed on the foundations of the Abbey, to the south of Abbey Street (GLHER 131616). The area to the west of this was more industrial, with a quarry and pit found at Long Walk (GLHER 102836) and a cess pit noted along Bridewain Street (GLHER 121259). This appears to be an area on the periphery of the tanneries noted further south, within the EIA Scoping Boundary around The Grange (GLHER 150729, GLHER 104684, GLHER 129203, GLHER 151896, GLHER 106086, GLHER 111301, GLHER 135944). A post-medieval workshop, possibly a kiln site, has been noted within the EIA Scoping Boundary to the south of Lambeth Road (GLHER 113653), directly east of a delftware production site (GLHER 101975). To the east of Bank End, a post-medieval building was demolished prior to the construction of the brewery, with features such as a road, floor surfaces and debris layers possibly indicative of industry noted (GLHER 104010, GLHER 126350, GLHER 98629, GLHER 113866, GLHER 104413, GLHER 118664).

- 1.5.65 Other areas noted to have been used for ancillary features have been noted along Borough High Street where a well and pit have been noted (GLHER 11329, GLHER 98592). Furthermore, tanneries have been recorded at Soham's Spot (GLHER 114815) and Maltby Street (GLHER 120327, GLHER 125272, GLHER 126367). Other industrial buildings within the EIA Scoping Boundary include a large building partially at Disney Place (GLHER 229990), a grain warehouse within King's Stairs Gardens (GLHER 108769), a hop warehouse east of Park Street (GLHER 127252, GLHER 138501), which was also built on the site of an earlier manor house called Suffolk Place (GLHER 229987).
- 1.5.66 At Soham's Point, within the EIA Scoping Boundary, a Tudor boat yard has been identified (GLHER 110388). In proximity to this, a waste disposal site has been identified (GLHER 113603), as has a barge bed (GLHER 147683) and a jetty (GLHER 99402). South of Hopton Street and also within the EIA Scoping Boundary, a Tudor tide mill has been recorded (GLHER 133581) which was superseded by a glass furnace (GLHER 143638). Within Crossbones Graveyard, the post-medieval cemetery within St Saviour's Churchyard is noted (GLHER 118593, GLHER 139872, GLHER 96800), whilst probable church vaults have been identified beneath St George's Churchyard Gardens (GLHER 123382). Further burials may be located within the churchyard noted within King George's Park, also situated within the EIA Scoping Boundary (GLHER 141413).
- 1.5.67 A female penitentiary and hospital is recorded to have extended across the area around Blackfriars Road (GLHER 227561), whilst a club which was used as an auxiliary military hospital during World War One is recorded south of Jamaica Road (GLHER 101777). Both cross the EIA Scoping Boundary. Features within the EIA Scoping Boundary related to the English Civil War

have been recorded at the Imperial Wall Museum (GLHER 119289) and at Jamaica Road and Grange Road (GLHER 225258, GLHER 235819).

- 1.5.68 Within the 100m Study Area, there are 20 non-designated archaeological assets, with nine of these recorded within the EIA Scoping Boundary. Two 20th century parks are recorded as extending into the EIA Scoping Boundary, namely King's Stairs Park (GLHER 125132) and Geraldine Mary Hamsworth Park (GLHER 143976).
- 1.5.69 There are 31 non-designated archaeological assets of an unknown date which are recorded within the 100m Study Area, eight of which are within the EIA Scoping Boundary, one being a findspot. Undated human remains have been recovered south of Abbey Road within the footprint of Bermondsey Abbey (GLHER 87819) and 10m south of the EIA Scoping Boundary (GLHER 86754), both of which may indicate more expansive cemeteries. Four environmental features of an unknown date have been recorded partially within the EIA Scoping Boundary at Rotary Street (GLHER 107438), within the EIA Scoping Boundary to the east of Bank End (GLHER 150880), within the EIA Scoping Boundary along Old Kent Road (GLHER 127804), and within the EIA Scoping Boundary to the east of Borough High Street (GLHER 116696). These, alongside evidence of previous landscapes from the prehistoric period, highlight the potential for further landscape and environmental evidence to survive within the EIA Scoping Boundary. A pit of an unknown date has also been within the EIA Scoping Boundary to the southeast of Tower Bridge Road (GLHER 96883).

London Borough of Lambeth

Archaeological Priority Areas

- 1.5.70 The APA: Lambeth Waterfront covers the majority of the Site, with only the section of the Site located along Waterloo Road until St John's Waterloo is located outside of the APA. This APA is known to have been settled since the prehistoric period, with a Roman settlement and boat, medieval riverside zone village centres and important houses, post-medieval settlement and early industrial development also identified in the area. Buried archaeological remains associated with these known occupation areas are likely to survive below ground and be archaeologically significant. The Thames foreshore has also been recognised as having great archaeological potential due to the presence of waterlogged deposits surviving from all periods and the possibility of recovering and interpreting archaeo-environmental data contained within the sediments (Ref 14).

Key Non-Designated Heritage Assets

- 1.5.71 There are a total of 204 non-designated archaeological assets and nine non-designated built heritage assets noted within the 100m Study Area. Of these,

36 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological and built heritage assets.

- 1.5.72 There are no Palaeolithic non-designated heritage assets within the 100m Study Area.
- 1.5.73 Dated to the Mesolithic, five non-designated archaeological assets have been identified within the 100m Study Area (GLHER 80936, GLHER 87251, GLHER 119032, GLHER 146151, GLHER 118645). None fall within the EIA Scoping Boundary. All Mesolithic assets are comprised of lithic implements which were recovered from the Thames and foreshore, likely having been transported to this area by fluvial processes.
- 1.5.74 There are 10 non-designated archaeological assets of a Neolithic date, nine of which are findspots of lithic implements from the Thames and foreshore which were likely recovered from a secondary context, having been transported by fluvial processes. A single feature has been reported within the 100m Study Area, namely three pits containing Neolithic to Bronze Age material, located approximately 15m southeast of the EIA Scoping Boundary (GLHER 109781). These pits may be part of a wider area of activity that extends into the EIA Scoping Boundary.
- 1.5.75 There are a total of 13 Bronze Age non-designated archaeological assets within the 100m Study Area, one of which is located within the EIA Scoping Boundary. A Bronze Age buried land surface was recorded within the EIA Scoping Boundary to the south of Stamford Street (GLHER 96771). The remaining assets within the 100m Study Area consist of metal objects recovered from the River Thames and foreshore, likely having been transported to this area by fluvial processes or ritually deposited.
- 1.5.76 Dated to the Iron Age, four non-designated archaeological assets have been identified within the 100m Study Area, two of which appear to be duplications of the others (GLHER 90093, GLHER 82187, GLHER 107996, GLHER 105717). None fall within the EIA Scoping Boundary. Similarly to the earlier periods, this spearhead and axehead were recovered from the Thames and foreshore, likely having been transported to this area by fluvial processes.
- 1.5.77 There are 13 non-designated archaeological assets pertaining to the general prehistoric period, three of which are located within the EIA Scoping Boundary. Two are findspots which appear to relate to the same asset, a lithic implement located within the EIA Scoping Boundary along Lambeth Road (GLHER 86643, GLHER 109858). One of two buried land surfaces within the 100m Study Area is located within the EIA Scoping Boundary to the south of Mephram Street (GLHER 114359). It is possible that further buried land surfaces dated to the prehistoric period survive.

- 1.5.78 From the Roman period, there are seven non-designated archaeological assets within the 100m Study Area, two of which lie within the EIA Scoping Boundary. The two assets noted within the EIA Scoping Boundary are located within the EIA Scoping Boundary to the south of Lambeth Road and appear to pertain to the same find (GLHER 104593, GLHER 81734). A single Roman feature has been noted approximately 85 m southeast of the EIA Scoping Boundary, consisting of a clay water pipe which must have supplied something in the area which may survive as buried archaeological remains (GLHER 115504).
- 1.5.79 The early medieval period is represented by 11 non-designated archaeological assets, two of which are located within the EIA Scoping Boundary. An early medieval ditch was excavated from the EIA Scoping Boundary to the north of Lambeth Road, although no finds were recovered from the fill (GLHER 114554), a 10th century sherd was found in the same area (GLHER 91120). Within the wider 100m Study Area, an early medieval village has been identified along Lambeth High Street, approximately 85m southeast of the EIA Scoping Boundary (GLHER 99670). Approximately 35m northwest of the EIA Scoping Boundary, an early medieval church is known to have pre-dated St Mary-at-Lambeth (GLHER 111507), whilst a manor was a precursor to Lambeth Palace, located approximately to the 60m northeast (GLHER 104472).
- 1.5.80 There are 26 non-designated archaeological assets of a medieval date within the 100 m Study Area, six of which fall inside of the EIA Scoping Boundary. Four medieval roads are known to cross the EIA Scoping Boundary, along Hercules Road (GLHER 143043), Lambeth Road (GLHER 125717), Alberth Embankment (GLHER 149582), and Black Prince Road (GLHER 103567). Directly northeast of the EIA Scoping Boundary, the former churchyard of St Mary-at-Lambeth has been noted (GLHER 216301), whilst a landing stage has been identified along the foreshore within the EIA Scoping Boundary (GLHER 137112).
- 1.5.81 There are 104 post-medieval non-designated archaeological assets and four non-designated built heritage assets within the 100m Study Area, with 16 of these located within the EIA Scoping Boundary, including features related to the landscaping of a park at Ronald McDonald House (GLHER 115165) and the riverside promenade of the Albert Embankment (GLHER 213834). Along this embankment, a dock and landing steps have been recorded within the EIA Scoping Boundary (GLHER 96838, GLHER 148771). A Tudor cemetery has been recorded overlapping with the EIA Scoping Boundary at the Exton Street and Waterloo Road intersection (GLHER 135002) within the former churchyard which is now a public park (GLHER 215954). To the south of Stamford Street, located within the EIA Scoping Boundary, a waste disposal site has been excavated (GLHER 97281).

- 1.5.82 Within the 100m Study Area, there are seven non-designated archaeological assets and five built heritage assets dated to the modern period. Of these, five are located within the EIA Scoping Boundary. Two public parks are recorded to the northwest of Lambeth Road (GLHER 216390) and north of Lambeth Road (GLHER 213847), whilst a riverside promenade is noted along the Queen's Walk (GLHER 217281).
- 1.5.83 There are three non-designated archaeological assets of an unknown date within the 100m Study Area, one of which is also located within the EIA Scoping Boundary. This asset consists of an undated area of marsh, where alluvial gravels were found to be overlain by Bronze Age peaty clay to the south of Stamford Street (GLHER 128484).

London Borough of Barking and Dagenham

Archaeological Priority Areas

- 1.5.84 The Tier 3 APA: Barking Level and Dagenham Marsh extends across the entirety of the EIA Scoping Boundary within the Borough of Barking and Dagenham. The APA was once an area of extensive estuarine/marshland landscape, with many instances of peat being recorded beneath more recent made ground deposits. The Barking Eyot, surrounding channels and surrounding area has both archaeological and palaeoenvironmental potential, as the area may have been used during the Neolithic and Bronze Age and remained largely undeveloped prior to the late 19th and early 20th centuries. Potential discoveries within the Tier 3 APA could include boats, fish-traps and trackways, as well as artefacts and environmental evidence, and would be of archaeological interest and significance. There may also be evidence of land reclamation and inundation dating from the medieval period onwards, whilst the landscape also has a high potential for the preservation of organic remains associated with a wetland environment (1.6Ref 15)

Key Non-Designated Heritage Assets

- 1.5.85 There are no non-designated heritage assets located within the EIA Scoping Boundary within the Borough of Barking and Dagenham. There are a total of 11 non-designated heritage assets within the 100m Study Area, all of which are archaeological assets.
- 1.5.86 There are no non-designated heritage assets dated to the Palaeolithic, Mesolithic, Neolithic, Bronze Age, Iron Age, Roman or early medieval periods within the 100m Study Area.
- 1.5.87 An area recorded as Hindman's Marsh during the medieval period (GLHER 96371) has been identified approximately 65m east of the EIA Scoping Boundary, where The Gores flows into the Thames. Documentary sources suggest that the area became completely flooded in the 14th and 15th centuries when the flood defences were breached.

- 1.5.88 Five post-medieval sunken vessels are noted within the EIA Scoping Boundary as it crosses the River Thames (GLHER 227024, GLHER 226942, GLHER 226902, GLHER 226938, GLHER 226894), whilst documentary evidence suggests three ships were used to plug a breach in flood defences approximately 10m east of the EIA Scoping Boundary at Breach Lane (GLHER 206820). Approximately 25m east of the EIA Scoping Boundary, the route of the former Romford Canal is recorded (GLHER 210681), whilst a waste disposal site (GLHER 130455) was noted approximately 80m north of MAP Site B1M3.
- 1.5.89 An early 20th century shipwreck (GLHER 227138) is recorded approximately 60m south of MAP Site B3M2 alongside the group of five post-medieval wrecks.
- 1.5.90 A buried land surface of an unknown date, consisting of peat and clay deposits, were recorded approximately 70m northeast of the EIA Scoping Boundary at Ford Heritage Centre (GLHER 146382). It is possibly of a Pleistocene date.

London Borough of Tower Hamlets

Archaeological Priority Areas

- 1.5.91 The Tier 2 APA: Wapping encompasses the entirety of the EIA Scoping Boundary within the Borough of Tower Hamlets. Wapping is a historic settlement dating back to the early medieval period which developed into a linear settlement and later an industrial area. During prehistory, Wapping would have originally stood as a small island within the braided river channel of the Thames. This has mostly infilled and now comprises the London Docks and the Thames foreshore. There is potential to better define the geomorphology of the braided Thames and its effects on human activity with further evidence. Evidence for early medieval and medieval activity may survive and would be significant, with later evidence of the industrialisation and mercantile growth of London is likely to be more common and informative (Ref 16)

Key Non-Designated Heritage Assets

- 1.5.92 There are a total of 39 non-designated archaeological assets and three non-designated built heritage assets within the 100m Study Area. Of these, eight non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological remains and historic buildings.
- 1.5.93 There are no Palaeolithic, Mesolithic, Bronze Age, Iron Age, Roman, early medieval, modern or unknown non-designated heritage assets, or heritage assets of or unknown date within the 100m Study Area.
- 1.5.94 Two Neolithic non-designated archaeological assets are reported within the 100m Study Area, both of which are also located within the EIA Scoping

Boundary and are believed to refer to the same asset, the findspot of a polished axe (GLHER 146057, GLHER 93506), recovered from the River Thames.

- 1.5.95 Three non-designated archaeological assets from the medieval period are recorded within the 100m Study Area, two of which are also located within the EIA Scoping Boundary and are believed to refer to the same heritage asset. This heritage asset comprises a pipeclay figurine (GLHER 105996, GLHER 82321), recovered from the Thames foreshore.
- 1.5.96 A total of 34 post-medieval non-designated archaeological assets and three historic buildings have been identified within the 100m Study Area, five of which are located within the EIA Scoping Boundary. During the Thames Foreshore Survey, two causeways, landing steps and a wharf have been recorded (GLHER 105489, GLHER 125163, GLHER 139875).

City of London

Archaeological Priority Areas

- 1.5.97 The City of London is considered to be equivalent to a Tier 1 APA, with a high archaeological potential present in all areas except those where there is evidence that that archaeological remains have been lost due to deep basement construction or other intrusive groundworks. The almost continuous occupation of the City through the Roman, early medieval and medieval periods to the present-day has led to the build-up of a complex and deep archaeological layer surviving below building basements, streets and open spaces as well as visible monuments such as the Roman and medieval City wall (Ref 17).

Key Non-Designated Heritage Assets

- 1.5.98 There are a total of 2832 non-designated archaeological assets and 25 non-designated built heritage assets noted within the 100 m Study Area. Of these, 353 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological and built heritage assets.
- 1.5.99 A total of three non-designated archaeological assets dated to the Palaeolithic and four to the Mesolithic have been identified within the 100m Study Area, none of which fall within the EIA Scoping Boundary. All consist of isolated findspots comprising burnt and worked flint.
- 1.5.100 Eighteen non-designated archaeological assets dating to the Neolithic period have been located, all of which consist of findspots of worked flint and pottery. Two of these findspots, possibly referring to the same stone axe, have been noted within the EIA Scoping Boundary, at Well Court (GLHER 112049, GLHER 93994). Similarly, 13 non-designated archaeological assets dated to the Bronze Age have been noted within the 100m Study Area, with two assets, likely referring to the same hoard, recorded along Queen Street (GLHER

145720, GLHER 81618). There are 35 non-designated archaeological assets within the 100m Study Area from the Iron Age, seven of which are within the EIA Scoping Boundary, all of which are isolated findspots, comprising a range of metal artefacts (GLHER 93246, GLHER 94769, GLHER 87186, GLHER 86730, GLHER 143761, GLHER 102668, GLHER 126333).

- 1.5.101 Dated to the general prehistoric period, 32 non-designated archaeological assets have been noted within the 100m Study Area, five of which cross the EIA Scoping Boundary. A Roman road which follows the route of a prehistoric trackway is noted intersecting with the EIA Scoping Boundary at Queen Victoria Street (GLHER 231491), whilst a channel dated to the prehistoric period was identified at Innholders' Hall (GLHER 109931). The remaining three assets pertain to lithic implements found at King Street (GLHER 130553, GLHER 93762) and Ironmonger Lane (GLHER 84909).
- 1.5.102 A total of 1375 non-designated archaeological assets of Roman date have been identified within the 100m Study Area, with 164 reported within the EIA Scoping Boundary itself. Sixty-five of these are findspots which are regularly distributed throughout the area, whilst the rest relate to development within *Londinium*. A Roman road has been identified crossing the EIA Scoping Boundary at Queen Victoria Street (GLHER 231535) and running along Bishopsgate (GLHER 101189), as well as in proximity to extensive areas of buildings at Trump Street (GLHER 132082). Roman town walls have been noted within the EIA Scoping Boundary along London Wall (GLHER 101553, GLHER 142709, GLHER 129258, GLHER 111427, GLHER 144901, GLHER 129119, GLHER 139288), Copthall Avenue (GLHER 145333), New Broad Street (GLHER 100205), Basinghall Street (GLHER 108614), Camomile Street (GLHER 118938, GLHER 144901, GLHER 139288), Upper Thames Street (GLHER 144901, GLHER 139288). Part of the Roman wall has also been noted within the EIA Scoping Boundary along Upper Thames Street alongside a quay (GLHER 139399, GLHER 129787), with flood defences also noted (GLHER 141774, GLHER 128618).
- 1.5.103 Roman buildings and occupation features have been identified within the EIA Scoping Boundary around College Street (GLHER 97247, GLHER 135468, GLHER 149948, GLHER 95932, GLHER 130933, GLHER 121938, GLHER 148191), as well around the Queen Street and Queen Victoria Street intersection (GLHER 120679), south of Trump Street (GLHER 134654, GLHER 113741, GLHER 111219, GLHER 139715, GLHER 116569, GLHER 132340, GLHER 144013, GLHER 126330, GLHER 131085, GLHER 135837, GLHER 110682), south of Gresham Street (GLHER 144050, GLHER 126928, GLHER 129127, GLHER 112240, GLHER 105965, GLHER 232311, GLHER 232311), south of Camomile Street (GLHER 107420) and around Lawrence Lane (GLHER 129925, GLHER 109319, GLHER 95695, GLHER 107536, GLHER 142257, GLHER 150201). Other likely areas of Roman occupation have been noted partially south of Bucklesbury where the Temple of Mithras

is noted (GLHER 230114) and to the north of Cheapside (GLHER 103296, GLHER 144588, GLHER 99723, GLHE 135003, GLHER 140085). Tessellated floors within the EIA Scoping Boundary have been noted at Cannon Street Station (GLHER 144561), opposite Well Court (GLHER 130362) and Great St Thomas Apostle (GLHER 148598).

- 1.5.104 Features related to the management of the Roman city, including earthworks, terraced ground, layers and drains, have been found within the EIA Scoping Boundary at Innholders' Hall (GLHER 130998, GLHER 117908, GLHER 130451, GLHER 137665, GLHER 101204, GLHER 97229). Human remains have been recovered within the EIA Scoping Boundary just north of the London Wall (GLHER 144914, GLHER 146194, GLHER 99541) and east of Coleman Street (GLHER 122290), whilst cremations were at the London Wall and Moorgate intersection (GLHER 146219, GLHER 119456), suggesting this area may be a more expansive burial ground. A small cemetery containing both inhumations and burials has also been noted within the EIA Scoping Boundary along Broad Street (GLHER 106040) and Queen Street (GLHER 105415). A well has been noted within the EIA Scoping Boundary to the east of Coleman Street (GLHER 101030) alongside a water channel (GLHER 125529), whilst an unidentified Roman structure was recorded to the north of London Wall (GLHER 107030).
- 1.5.105 There have been 219 non-designated archaeological assets identified dated to the early medieval period, with 27 noted within the EIA Scoping Boundary. Of those 27, 19 are findspots. Evidence of buildings and associated occupation features have been noted within the EIA Scoping Boundary between Lawrence Lane and King Street (GLHER 122404), south of Trump Street on the site of a Roman building (GLHER 122020) and south of Skinners Lane (GLHER 116572). An early medieval cemetery is located directly north of Pancras Lane (GLHER 125510, GLHER 130196), whilst an early medieval chest tomb was uncovered south of Skinners Lane (GLHER 133567). A pit has also been noted within the EIA Scoping Boundary to the west of Coleman Street (GLHER 109373).
- 1.5.106 Dated to the medieval period, there are a total of 668 non-designated archaeological assets, 77 of which are situated within the EIA Scoping Boundary. Medieval buildings have been noted within the EIA Scoping Boundary at Innholders' Hall (GLHER 151378), Moorgate (GLHER 131032), south of Trump Street on the site of Roman and early medieval buildings (GLHER 115252), north of Cannon Street where a possible royal palace is documented (GLHER 114414, GLHER 102781, GLHER 230118), between Lawrence Lane and King Street (GLHER 94788) and east of Ironmonger Lane (GLHER 108237). Meanwhile, cemeteries have been identified within the EIA Scoping Boundary south of Skinners Lane (GLHER 102710), within the churchyard of the medieval church of St Martin Vintry (GLHER 123109, GLHER 98538). Other cemeteries are located within the EIA Scoping

Boundary to the north of London Wall (GLHER 143389) and north of Cloak Lane (GLHER 104443) which was adjacent to a medieval church (GLHER 126193). Further churches and churchyards have also been noted at Queen Victoria Street (GLHER 140595, GLHER 150177, GLHER 139775), north of Upper Thames Street (GLHER 141714, GLHER 119519) and at Guildhall Yard (GLHER 97864). Medieval human remains not in proximity to any known medieval graveyard were also revealed at Moorgate (GLHER 121754). Two medieval friaries have been noted partially within the EIA Scoping Boundary centred on Great Winchester Street (GLHER 104739) and south of Lothbury (GLHER 114256). A medieval church which was originally constructed as a Synagogue was excavated to the west of King Street (GLHER 100693), whilst another was noted along London Wall which had an anchorite cell attached (GLHER 124346, GLHER 118578).

1.5.107 Within the EIA Scoping Boundary to the north of London Wall, elements of the medieval London Wall have been identified (GLHER 100652, GLHER 137564, GLHER 94884, GLHER 149157), with the medieval Bishopsgate (GLHER 151059, GLHER 140519) and Moorgate (GLHER 114929) also noted. Further evidence of these defences has been noted within the EIA Scoping Boundary at Innholders' Hall (GLHER 123995), whilst different medieval walls have been encountered along upper Thames Street (GLHER 149105, GLHER 131254), West of King Street (GLHER 118905) and south of Gresham Street (GLHER 102204, GLHER 232312). Two wattle lined pits and ditches have been noted within the EIA Scoping Boundary to the east of Coleman Street (GLHER 135504, GLHER 132207), adjacent to a waste disposal site (GLHER 130307). A medieval layer has been recorded within the EIA Scoping Boundary west of Coleman Street (GLHER 133710), adjacent to a medieval road (GLHER 124654) and sewer (GLHER 147769). Also within the EIA Scoping Boundary are a medieval well around Queen Victoria Street (GLHER 135925) and a gravel extraction site intersects with the EIA Scoping Boundary south of Camomile Street (GLHER 134583).

1.5.108 From the post-medieval period, 350 non-designated archaeological assets have been recorded within the 100m Study Area, as well as 20 non-designated built heritage assets. Of these, 47 are located within the EIA Scoping Boundary itself. Evidence of demolished post-medieval buildings have been identified within the EIA Scoping Boundary to the south of Skinners Lane (GLHER 142925), along King Street where a cellar was found (GLHER 122190), north of London Wall (GLHER 110926) and south of Camomile Street (GLHER 131339). Other post-medieval features include a waste disposal site within the EIA Scoping Boundary at Upper Thames Street (GLHER 146586), a second waste disposal site adjacent to the first (GLHER 107244) and a cellar to the south of Lothbury (GLHER 130373). Human remains from this period have been noted within the EIA Scoping Boundary to the west of Coleman Street (GLHER 129325), whilst a cemetery has been

noted northeast of Camomile Street (GLHER 99259) and at Great St Thomas Apostle (GLHER 151350). Churchyards have also been noted extending into the EIA Scoping Boundary to the north of Gresham Street (GLHER 114508), to the north of Upper Thames Street (GLHER 101276) and north of Queen Victoria Street (GLHER 116866).

1.5.109 A total of 12 non-designated archaeological assets and five non-designated built heritage assets of a modern date have been identified within the 100m study Area. Four of these are located within the EIA Scoping Boundary, including a 20th century zeppelin bombing site within the EIA Scoping Boundary along Moorgate (GLHER 103899).

1.5.110 Across the 100m Study Area, 93 non-designated archaeological assets of an unknown date have been noted, nine of which lie within the EIA Scoping Boundary. These include the following features of an unknown date: a construction trench at Innholders' Hall (GLHER 127387); a wall south of Gresham Street (GLHER 131757); and a revetment east of Coleman Street (GLHER 95183). A layer of an unknown date has been recorded alongside the revetment (GLHER 121403), whilst a stream was noted at Innholders' Hall (GLHER 123932).

City of Westminster

Archaeological Priority Areas

1.5.111 The Tier 1 APA: Westminster and Whitehall comprises a small section of the EIA Scoping Boundary which crosses the roundabout to the south of Trafalgar Square. Westminster and Whitehall have been central to royal government administration of the country since the medieval period and for nearly 1000 years it has been at the centre of the country's most historic events such as coronations, royal weddings, state funerals and general elections. Buildings within the APA are recognisable throughout the world and few other places within London or the rest of the country have such a richness of archaeological potential, with the APA also containing a World Heritage Site. The area's overall significance comes from its role as a place of coronation (since 1066), royal burial site (since the late 13th century), royal residence (since the mid-11th century), its association with royal councils and later parliamentary democracy, its role as the centre of a world empire during the 19th and 20th centuries and the architectural quality of the buildings within it. Any ground disturbance within the APA is likely to come across archaeological remains, such as the foundations of former buildings, river walls and earlier phases of the palaces and abbey.

1.5.112 There is also still much to be learnt about the nature and extent of settlement in the area during the prehistoric, Roman and early medieval periods. The whole flood plain area itself is of geoarchaeological interest and archaeological work here has the potential to add to our knowledge of the

Holocene evolution of the London area and the rising level of the Thames (Ref 18).

- 1.5.113 The Tier 1 APA: *Ludenwic* and the Strand comprises the Site to the east of Haymarket and south of Shaftesbury Avenue. The main focus of the APA is the early medieval settlement of *Lundenwic* which represents a critical and still relatively poorly understood episode in the history of London as only a fraction of the settlement has been excavated. Evidence of early medieval urban development is limited nationally, although *Ludenwic* is known to have been an important trading centre which in places still possesses stratified deposits rich in structural remains, artefacts and environmental evidence. Where early medieval levels survive, prehistoric and Roman remains could survive beneath them. If the prehistoric foreshore survives it will be buried at some depth below the Strand with potential for wooden structures or votive deposits.
- 1.5.114 The discoveries at St. Martin-in-the-Fields show potential to address the end of Roman London, a subject potentially of national significance. With the exception of the Savoy Chapel few buildings from the medieval period or even the early post-medieval period survive within the APA. Remains of sites such as York House, the Savoy Palace and the numerous other grand mansions or bishops' residences would have been impacted upon by later developments but some remains may survive. The post-medieval river wall with its associated river stairs and gates has been shown to survive as a very substantial buried structure which could merit statutory protection. Finally, the Ice Age faunal remains found around Trafalgar Square represent rare and important discoveries for understanding natural history (Ref 18).
- 1.5.115 The Tier 2 APA: Great Estates comprises the Site to the west of Haymarket and to the north of Shaftesbury Avenue until the intersection of Harley Street and Wigmore Street. The survival of buried remains appears irregular, with severe truncation from subsequent development in many areas. The location and layout of London's Civil War defences are currently poorly understood, and this APA may contain evidence which could better inform on this topic. Traces of urban fringe activities such as horticulture, quarrying and rubbish disposal would also be expected. From prehistory, the most likely potential discoveries are Palaeolithic flint tools from the natural Lynch Hill gravel. All the areas within the APA were developed by wealthy landowners but many of the buildings constructed during the initial building phases were demolished within 100 years of their construction and few buildings around the squares of these estates date from their initial establishment. Remains of those buildings that have been demolished since their construction may have been damaged by subsequent developments that have taken place. Nevertheless, the possibility of uncovering and studying the remains of earlier buildings remains.
- 1.5.116 Burial grounds are also significant as they can provide information on the life expectancy, general health and social background of the local community and

the diseases that they were suffering from. Wealthy upper and middle class populations from the Great Estates can then be compared with others such as working class populations from East London and rural communities (Ref 18).

1.5.117 The Tier 2 APA: Oxford Street/Bayswater encompasses section of the Site which fall between Oxford Street and Wigmore Street/Seymour Street from Marylebone Lane to Great Cumberland Place, as well as Stanhope Place and Connaught Square. The APA focuses on the London to Silchester Roman road which was one of the most important routes from *Londinium*. The importance of the road is demonstrated by the fact it remained in use after the Roman period and is still followed by Oxford Street and Bayswater Road which are both important routes into and out of central London. Remains of Tyburn's parish church, the conduit and the banqueting house may be present within the vicinity of Bond Street station and Stratford Place although the developments that have taken place since the 18th century would have had an impact on any remains (Ref 18).

1.5.118 The Tier 2 APA: Watling Street covers the Site between Great Cumberland Place and Connaught Square and focussed on the Roman road of Watling Street, which was an important routeway linking Londinium with St Albans and beyond. The fact that its route remained in use and is still followed by major roads demonstrates its continued importance. Minor roadside settlements and other land uses such as cemeteries, market gardens or quarry pits may have developed along the road and while their remains would have been impacted upon by modern developments, some might survive. Any evidence for the conjectured extension towards a Westminster river-crossing would be of special interest as potentially relating to the Roman Conquest itself (Ref 18).

1.5.119 The Tier 3 APA: Pimlico includes the parts of the Site which lie between Horseferry Road, the borough boundary with Kensington and Chelsea, and Eaton Square. For much of its history the APA was a marshy, wetland area unsuitable for permanent settlement but was likely exploited and may have preserved environmental evidence and prehistoric features as seen in comparable locations elsewhere in the Thames valley. The open ground of Tothill Fields seems to have attracted a range of unusual uses reflecting its proximity to Westminster, some of which may have left archaeologically recognisable remains. Vincent Square is an area of particular interest since it has never been developed. Archaeological remains of the Civil War defences and a 17th century plague burial ground may be present there. Even if plague burials are not located in Vincent Square they are located within the APA and could number several thousand (Ref 18).

Key Non-Designated Heritage Assets

1.5.120 There are a total of 677 non-designated archaeological assets and 51 non-designated built heritage assets noted within the 100m Study Area. Of these,

190 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological and built heritage assets.

- 1.5.121 A total of 53 Palaeolithic non-designated archaeological assets have been identified within the 100m Study Area, ten of which lie within the EIA Scoping Boundary. These all consist of isolated lithic implements; however, buried land surfaces have been noted in the wider 100m Study Area approximately 30m west of the EIA Scoping Boundary (GLHER 105673) which could indicate survival of previously undiscovered land surfaces survive within the EIA Scoping Boundary from the same period.
- 1.5.122 The Mesolithic is represented by 15 non-designated archaeological assets, one of which falls within the EIA Scoping Boundary and comprises a buried land surface located south of Vauxhall Bridge Road (GLHER 95770). Mesolithic features have been identified approximately 65m south of the EIA Scoping Boundary (GLHER 124618), with the remaining assets comprising findspots of lithic implements.
- 1.5.123 There are ten Neolithic non-designated heritage assets within the 100m Study Area, none of which falling within the EIA Scoping Boundary. All but one comprise isolated findspots of lithic implements, with the outlier being a layer located approximately 100m northwest of the EIA Scoping Boundary (GLHER 119933).
- 1.5.124 Within the 100m Study Area, there are 35 non-designated archaeological assets, with ten falling within the EIA Scoping Boundary, all of which comprise of isolated metal finds. Approximately 70m southwest of the EIA Scoping Boundary, a water channel dated to the Bronze Age has been identified, with associated environmental remains possibly surviving closer to the EIA Scoping Boundary (GLHER 99422).
- 1.5.125 There are two non-designated archaeological assets dated to the Iron Age which are located within the 100m Study Area but not the EIA Scoping Boundary. Both consist of findspots and they may relate to the same asset. There are a further 27 non-designated archaeological assets from the general prehistoric period, nine of which fall within the EIA Scoping Boundary. Six of these are findspots, with the remaining three evidence of the prehistoric landscape, namely a palaeochannel located south of Long Acre (GLHER 117696) and two layers located south of Cockspur Street (GLHER 102845) and within the River Thames (GLHER 142594).
- 1.5.126 Sixty non-designated archaeological assets of Roman date have been identified within the 100m Study Area, with seven falling within the EIA Scoping Boundary. Four of these consist of findspots, with the other three being Roman roads which cross the EIA Scoping Boundary along Edgware Road (GLHER 127390), along Bayswater Road and Oxford Street (GLHER 231535) and along Pall Mall (GLHER 231491).

- 1.5.127 Within the 100m Study Area, 124 non-designated archaeological assets have been recorded from the early medieval period. Of these, 33 are located within the EIA Scoping Boundary. These assets include pits related to quarrying noted to the northeast of Garrick Street (GLHER 127455) and rubbish pits south of Long Acre (GLHER 138958). Adjacent to the EIA Scoping Boundary to the northeast of Bedford Street, early medieval occupation has been noted throughout Covent Garden which is known to have part of *Lundenwic* (GLHER 141159, GLHER 117737, GLHER 136368, GLHER 122541, GLHER 134995, GLHER 107725, GLHER 119028, GLHER 118014). Early medieval activity and burials have also been noted opposite Covent Garden, between 40 m and 60 m west of the EIA Scoping Boundary (GLHER 134640, GLHER 123517, GLHER 118460), and to the north, between 15m and 60m to the north (GLHER 124053, GLHER 132830, GLHER 110758, GLHER 111956).
- 1.5.128 There are 84 non-designated archaeological assets of a medieval date located within the 100m study area, with 24 falling within the EIA Scoping Boundary. Medieval roads have been recorded crossing the EIA Scoping Boundary at Trafalgar Square (GLHER 112232), along Whitcomb Street (GLHER 150957) and along Coventry Street (GLHER 150957). Durham House, one of a number of medieval townhouses along the riverbank, is noted within the EIA Scoping Boundary to the southeast of The Strand (GLHER 135500), as are York House (GLHER 127970) and Durham House (GLHER 135500), the latter being built on the site of a 13th century friary (GLHER 230948). At Warwick Square, a market garden is reported to have been located, possibly associated with Abbeys Neate House (GLHER 148732). Medieval hospitals are noted to intersect with the EIA Scoping Boundary at Charring Cross (GLHER 127937) and to the south of Trafalgar Square (GLHER 140898). Trafalgar Square itself largely comprised a falconry until the 1830s (GLHER 135352). This area was extensively inhabited during the medieval period, with Charring Cross noted as an area of occupation (GLHER 125586). Medieval human remains have been identified within the EIA Scoping Boundary which are associated with the Church of St Pauls (GLHER 119429) and a medieval road has been identified along Coventry Street (GLHER 150957).
- 1.5.129 Dated to the post-medieval period, there are 230 non-designated archaeological assets, as well as 34 non-designated built heritage assets. Of these assets, 77 are located within the EIA Scoping Boundary, including Civil War defences which are noted around Oxford Street (GLHER 142795, GLHER 236030) and crossing Besborough Gardens (GLHER 137988). An extractive pit has been recorded within the EIA Scoping Boundary to the north of Wigmore Street (GLHER 120459), whilst a cess pit and well were noted south of Long Acre (GLHER 132845) and a layer was revealed along King Street (GLHER 142417). Also, within the EIA Scoping Boundary, to the north of Garrick Street is a cellar and vault (GLHER 118239), whilst a Tudor brewhouse was known to have existed at Trafalgar Square (GLHER 145872) in proximity

to a Tudor Inn (GLHER 140243). To the west of Cavendish Square, a post-medieval townhouse is recorded which was later used as an auxiliary hospital during World War One (GLHER 130404). Other estate houses and mansions have been noted to the southeast of Trafalgar Square (GLHER 95650), whilst the post-medieval exchange was recorded along The Strand (GLHER 146545).

- 1.5.130 Timber structures, revetments and other structures related to the riverside were recorded within the EIA Scoping Boundary along the foreshore (GLHER 101938, GLHER 113959, GLHER 105625, GLHER 142691). A cemetery has been recorded within Besborough Gardens (GLHER 113306) and along Bryanston Street (GLHER 109948) both of which are located within the EIA Scoping Boundary. A Tudor hospital, cemetery and religious house have been noted to the southeast of Trafalgar Square (GLHER 115124).
- 1.5.131 From the modern period, there are six non-designated archaeological assets and 33 non-designated built heritage assets. Sixteen of these are located within the EIA Scoping Boundary, all of which are non-designated built heritage assets. Second World War pillboxes are recorded at The Adelphi (GLHER 135051), at John Adam Street (GLHER 95145, GLHER 136843), along the Victoria Embankment (GLHER 140676), along Vauxhall Bridge Road (GLHER 151731) and Charring Cross (GLHER 148031). These have likely been removed but until confirmed are considered non-designated built heritage assets.
- 1.5.132 There are 26 non-designated archaeological assets of an unknown date within the 100m Study Area, three of which fall within the EIA Scoping Boundary (GLHER 103113, GLHER 134374, GLHER 151066).

Royal Borough of Kensington and Chelsea

Archaeological Priority Areas

- 1.5.133 The Tier 2 APA: Chelsea Riverside comprises the section of the EIA Scoping Boundary located within Raneleigh Gardens and covers the River Thames, foreshore and floodplain which has been proven to contain archaeological remains dating back to the prehistoric periods. The high-quality of preservation of archaeological finds and features from waterlogged conditions adds to the significance of these discoveries. There is also archaeological evidence for Roman and early medieval settlement in Chelsea, the nucleus of which was the Chelsea Old Church area. This early settlement area was protected by low-lying marshland to the east and west and set within a wider landscape sparsely populated by farms, large fields and the established prehistoric, Roman and medieval trackway and road systems. Between the 15th and 17th centuries Chelsea became a riverside resort for courtiers and wealthy Londoners. The grand areas of Chelsea in the centre of the APA contrast with

the slums of west Chelsea; Turks Row, Paradise Row and the World's End area. Industrial centres grew up in the marshy riverine zones and particularly around the mouth of Chelsea Creek. Interesting archaeological evidence of the APA's industrial heritage could survive here (Ref 19).

Key Non-Designated Heritage Assets

- 1.5.134 There are a total of 75 non-designated archaeological assets and eight non-designated built heritage assets noted within the 100m Study Area. Of these, 20 non-designated heritage assets are recorded within the EIA Scoping Boundary, comprising both archaeological and built heritage assets.
- 1.5.135 The Palaeolithic is represented by five non-designated archaeological assets within the 100m Study Area, with none located within the EIA Scoping Boundary. Two findspots were recovered from the River Thames, likely transported by fluvial processes, whilst the other three were recovered from the gravels approximately 50m south of the EIA Scoping Boundary (GLHER 119608).
- 1.5.136 There are three non-designated archaeological assets dated to the Mesolithic, five dated to the Neolithic, and eight dated to the Bronze Age within the 100m Study Area, with none located within the EIA Scoping Boundary. All were recovered from the River Thames, likely transported to this secondary context by fluvial processes. A further two Bronze Age non-designated archaeological assets which likely refer to the same find have been recovered from within EIA Scoping Boundary at Egerton Place (GLHER 117915, GLHER 88854).
- 1.5.137 Within the 100m Study Area, two non-designated archaeological assets from the Iron Age have been reported, neither of which falls inside the EIA Scoping Boundary. A possible battlefield was encountered during the construction of the Chelsea Bridge when numerous human skulls were recovered from the River Thames and foreshore (GLHER 148934, GLHER 135567). In proximity to this, 14 non-designated archaeological assets dating to the Roman period have been recovered, some of which are thought to relate to the battle. No other finds dated to the Roman period have been noted within the 100m Study Area.
- 1.5.138 There is one non-designated archaeological assets of an early medieval date within the 100m Study Area, the isolated find of a horse harness (GLHER 96100).
- 1.5.139 Dating to the medieval period, there have been six non-designated archaeological assets noted within the 100m Study Area, two of which are medieval roads which cross the EIA Scoping Boundary. One crosses the EIA Scoping Boundary along the route of Brompton Road (GLHER 112564), whilst the other follows the route of Thurloe Place (GLHER 122396).

- 1.5.140 A total of 24 non-designated archaeological assets dated to the post-medieval period have been reported within the 100m Study Area, alongside five non-designated built heritage assets. Of these, 12 are located within the EIA Scoping Boundary, the majority of which are green spaces and private squares which intersect with the EIA Scoping Boundary. At the northern end of Ranelagh Gardens, located within the EIA Scoping Boundary, Ranelagh House was located until 1805 (GLHER 99141), whilst a cobbled road has also been noted within the Gardens (GLHER 132149). Terraced houses were constructed in the 1890s along Ellis Street which appear to be extant (GLHER 229174).
- 1.5.141 There are three non-designated archaeological assets and three non-designated built heritage assets dated to the modern period within the 100m Study Area, with three in total located within the EIA Scoping Boundary. These are comprised of wrecks within the River Thames and an underground line (GLHER 230048, GLHER 230007, GLHER 225285).
- 1.5.142 A buried soil horizon is the only non-designated archaeological asset of an unknown date within the 100m Study Area and EIA Scoping Boundary. It was uncovered within Ranelagh Gardens (GLHER 119103).

London Borough of Camden

- 1.5.143 No Archaeological Priority Areas are located within the EIA Scoping Boundary.
- 1.5.144 No non-designated heritage assets have been identified within the 100m Study Area, located within the London Borough of Camden.

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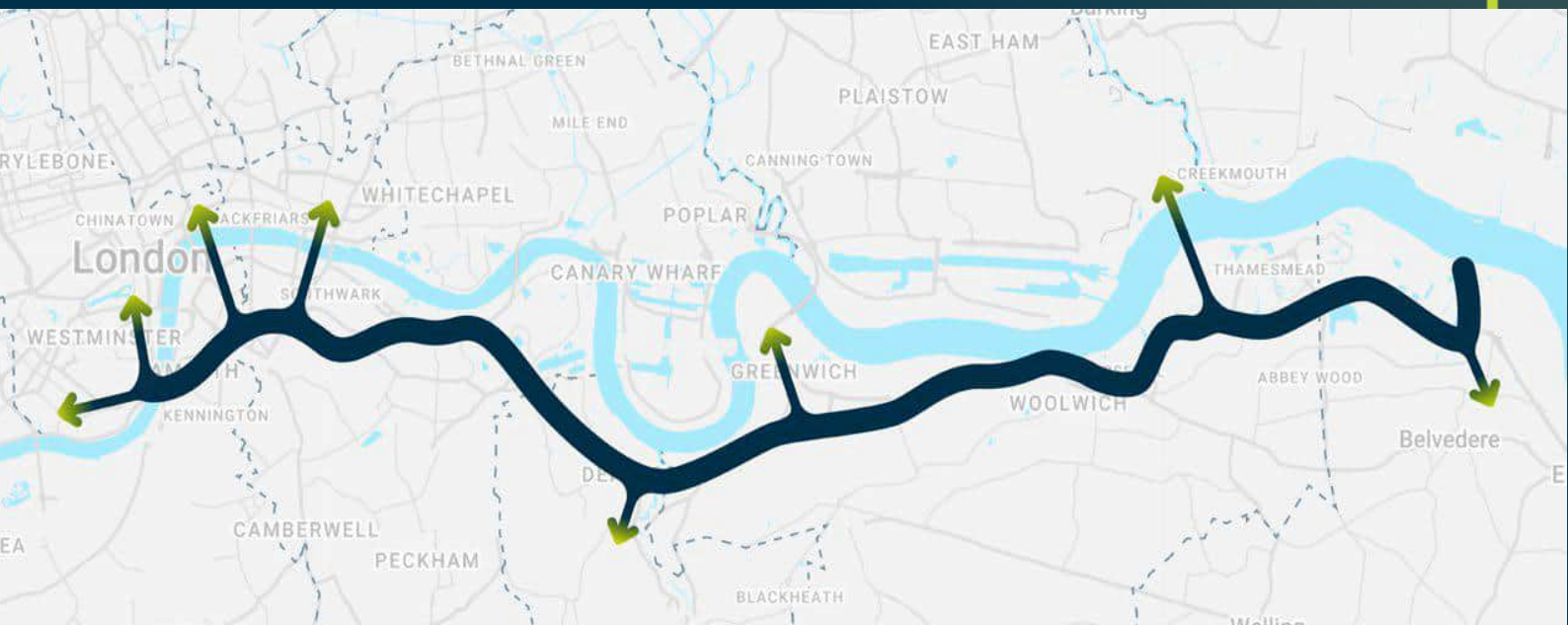
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Environmental Impact Assessment Scoping Report

Volume 3: Appendices

Appendix 12-1: Scoping of Major Accidents and Disasters



Cory Environmental Holdings Limited

July 2026

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1. Introduction

- 1.1.1 This Appendix provides an overview of the scoping of relevant Major Accidents and Disaster (MA&D) hazards and threats relevant to the Proposed Scheme, and presents the methodology used to collate the MA&D risk register for EIA Scoping.
- 1.1.2 A number of abbreviations are used within this appendix that are summarised within **Table 1**.

Table 1: Abbreviations

Abbreviation	Definition
ALARP	As Low as Reasonably Practicable
CDM	Construction Design and Management
CEMP	Construction Environmental Management Plan
CLP	Construction Logistics Plan
COMAH	Control Of Major Accident Hazards
DCO	Development Consent Order
FRA	Flood Risk Assessment
GDR	Ground Investigation Report
GIR	Geotechnical Design Report
MA&D	Major Accidents and Disasters

- 1.1.3 In **Table 1**, the abbreviation ALARP has been used for the term 'As Low as Reasonably Practicable'. Within this appendix, this refers to MA&D risks that have been reduced to ALARP with the implementation of standard good practice measures, mitigation required for compliance with legislation and/or through the assessment as part of other EIA topic chapters and, therefore, can be scoped out of the MA&D assessment.

2. Methodology

- 2.1.1 The methodology used to collate the MA&D risk register for EIA Scoping follows the below staged process.
- a. Stage 1: Identification of risk events:
 - i. The relevant risk events have been identified with reference to the National Risk Register (Ref. 1), London Risk Register (Ref. 2), the

existing baseline environment and the hazards that the Proposed Scheme may give rise to.

- b. Stage 2: Screening of risk events:
 - i. Each risk event is reviewed to determine whether a 'source-pathway-receptor' linkage exists to any of the identified environmental receptors.
 - ii. For each risk event with a linkage pathway, the reasonably foreseeable 'worst-case' environmental consequence (i.e. the likely significant effect) is identified.
- c. Stage 3: Identification of mitigation:
 - i. Mitigation measures that are either embedded within design, required for compliance with legislation, other regulatory regimes, or represent standard practice, and eliminate or reduce the risk of risk event occurring are identified.
- d. Stage 4: Conclusion on the EIA Scoping of relevant risks:
 - i. Following the consideration of relevant mitigation proposed, a conclusion is drawn on whether further assessment of the risk as part of the EIA is required.

2.1.2 The Institute of Environmental and Sustainability Professionals¹ (ISEP) Primer for MA&D (Ref. 1) states that the MA&D hazard or threat can be scoped out of the EIA, if the assessment can demonstrate:

- a. *"...there is no source-pathway-receptor linkage of a hazard that could trigger a major accident and/or disaster or potential for the scheme to lead to a significant environmental effect; or*
- b. *all possible major accidents and/or disasters are adequately covered elsewhere in the assessment or covered by existing design measures or compliance with legislation and best practice."*

2.1.3 However, if the above criteria cannot be demonstrated then the topic must be scoped into the EIA.

3. Scoping of MA&D hazards and threats

3.1.1 **Table 2** outlines the scoping of MA&D hazards and threats for the Proposed Scheme.

¹ Formerly Institute of Environmental Management and Assessment (IEMA)

- 3.1.2 Following the MA&D scoping assessment, it has been concluded that no risk events are required to be scoped in to the EIA. Therefore, it is proposed that the topic of MA&D can be scoped out of the ES.
- 3.1.3 An updated risk register is proposed to be submitted with the ES to signpost the relevant other topic chapters and supporting assessment which consider risk events scoped out of the MA&D assessment as well as signpost to mitigation that has been included.

Table 2: Scoping of Major Accident and Disaster Hazards and Threats

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Droughts	Construction, Operation and Decommissioning (if required)	Extreme weather event	Ground shrinkage	Proposed Scheme	Damage to infrastructure	An assessment of the resilience of the Proposed Scheme to extreme weather events will be set out within the ES as part of the climate change resilience assessment described within Volume 1, Chapter 7: Climate . Whilst the presence of workers associated with the Proposed Scheme would introduce new receptors, arrangements would be put in place to ensure all risks are minimised to be ALARP. First notification of a weather event will come	Out
Heatwaves	Construction, Operation and Decommissioning (if required)	Extreme weather event	Impact on the ability of the construction and operational workers of the Proposed Scheme to work	Workers, including temporary workers or visitors, on the Site	Human injury and health impacts		Out
Low temperatures and heavy snow (extreme cold weather resulting in	Construction, Operation and Decommissioning (if required)	Low temperatures and heavy snow	Snow and ice causing a construction traffic accident or other construction accident Extreme cold weather resulting in snow and ice on	Workers, including temporary workers or visitors, on the Site Proposed Scheme	Human injury and health impacts Damage to infrastructure		Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
snow and ice)			site during operation and associated hazards			from the Met Office, probably as an Early Warning within the National Severe Weather Warnings Service.	
Storms	Construction, Operation and Decommissioning (if required)	Extreme weather event	Movement of debris and loose construction equipment (Note: flooding is considered separately)	Workers, including temporary workers or visitors, on the Site Proposed Scheme Key infrastructure	Human injury and health impacts Damage to infrastructure	The Framework CEMP, to be submitted with the DCO Application, will set out measures for the monitoring of adverse weather conditions, which could impact on the construction works, with works to be stopped, if weather conditions are unsafe to continue. The Framework CEMP will also include requirements for emergency	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						preparedness and response plans. Mitigation measures also include the implementation of a safe system of work which would be produced by the contractor(s) to state how health and safety matters are managed, risks are identified and reduced in accordance with the current best practices and legal requirements.	
Severe meteorology (e.g. electrical storms)	Construction, Operation and Decommissioning (if required)	Electrical storm	There is considered to be no pathway for this hazard to result in a MA&D	N/A	N/A	None required.	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Earthquakes	Construction, Operation and Decommissioning (if required)	Earthquake	Ground movement	Proposed Scheme	Damage to infrastructure	In accordance with the London Risk Register (Ref. 2), there is a low risk of earthquakes within London, which would be managed through existing London Resilience Partnership Frameworks.	Out
Volcanic eruptions	Construction, Operation and Decommissioning (if required)	Volcanic eruption	Not considered relevant within the baseline context of the Proposed Scheme; no pathway exists	None identified as source-pathway-receptor linkage is not present	None identified as source-pathway-receptor linkage is not present	None required.	Out
Wildfires	Construction, Operation and Decommissioning (if required)	Wildfire caused by drought, heatwaves or lightning strike spreading to machinery, fuel storage, other buildings and	Dry conditions due to drought and/or heatwave enabling a fire to spread to Site. Fire spreading from Site to surrounding	Workers, including temporary workers or visitors, on the Site	Human injury and health impacts Damage to property and infrastructure	Fire safety risks at the Site will be managed in compliance with Health and Safety at Work etc Act 1974 (Ref. 3), Construction Design and Management (CDM) Regulations	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
		the surrounding environment	environment and infrastructure	Nearby sensitive environmental receptors Key infrastructure Proposed Scheme	Serious harm to sensitive environmental receptors	2015 (Ref. 4), Regulatory Reform (Fire Safety) Order 2005 (Ref. 5), Management of Health and Safety at Work Regulations 1999 (Ref. 6), Building Regulations 2010 (Ref. 7) and relevant industry good practice. The compliance with the relevant legislation requires the completion of a fire risk assessment, including setting out emergency plans and procedures and measures for the safe storage and handling of any hazardous substances.	
Flooding from	Construction, Operation	Extreme weather event	Flood event	Nearby sensitive	Serious harm to sensitive	A FRA will be submitted with the DCO	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
rivers, surface water and groundwater	and Decommissioning (if required)		Surface water flooding Flash flooding Flooding as a result of measures to deal with excess water becoming overwhelmed and/or failing	environmental receptors Population in surrounding residential areas Key infrastructure Workers, including temporary workers or visitors, on the Site Proposed Scheme	environmental receptors Evacuation from homes and/or the area Human injury and health impacts Damage to property and infrastructure	Application to confirm that the design of the Proposed Scheme would not alter residual flood risk from all sources. The Framework CEMP, which will be submitted with the DCO Application, will incorporate measures to reduce the risk of flooding to the construction site and to off-site receptors, as required. The permanent site drainage system, as set out within site drainage documentation to be submitted with the DCO Application, will incorporate a range of	

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						measures to ensure that the Proposed Scheme is not at risk from flooding and that it does not increase flood risk to offsite receptors.	
Aircraft incident	Construction and Decommissioning (if required)	Works in close proximity to London City Airport and helipads. Risk of collision, or disruption, of aircraft with tall machinery	The Proposed Scheme is not close to airfields or helipads to impact on aviation safety, nor will it require the construction of tall buildings	None identified as source-pathway-receptor linkage is not present	None identified as source-pathway-receptor linkage is not present	None required.	Out
An incident at a neighbouring facility (e.g. fire, explosion, flooding) impacting the	Construction, Operation and Decommissioning (if required)	An incident at a neighbouring facility (e.g. fire, explosion, flooding) impacting the	Nearby incident leading to a major accident/disaster at the Proposed Scheme	Workers, including temporary workers or visitors, on the Site	Evacuation from homes and/or the area Human injury and health impacts	Incidents at neighbouring facilities would be managed by the control measures implemented by these facilities. If an incident was to spread to the Site, this would be	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Proposed Scheme		Proposed Scheme		Proposed Scheme Key infrastructure General public	Damage to infrastructure	managed in accordance with the measures set out within separate rows of this table (e.g. see fire/explosion row below).	
Impacts from nearby COMAH Sites on the Proposed Scheme	Construction, Operation and Decommissioning (if required)	An incident at a nearby COMAH Site impacting the Proposed Scheme.	Incident at a nearby COMAH Site, leading to a major accident/disaster at the Proposed Scheme.	Workers, including temporary workers or visitors, on the Site Proposed Scheme Key infrastructure General public	Human injury and health impacts Damage to infrastructure Evacuation from homes and/or the area	Incidents at nearby COMAH Sites would be managed by the control measures implemented by these Sites, in accordance with The Control of Major Accident Hazards (COMAH) Regulations 2015. If an incident was to spread to the Site, this would be managed in accordance with the measures set out within	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						separate rows of this table (e.g. see fire/explosion row below).	
Impacts on nearby COMAH sites caused by the Proposed Scheme	Construction, Operation and Decommissioning (if required)	An incident at the Proposed Scheme impacting nearby COMAH Sites.	Incident at the Proposed Scheme, leading to a major accident/disaster at a nearby COMAH Site.	Nearby COMAH Sites. General Public. Adjacent sensitive environmental receptors and human receptors in surrounding residential areas	Evacuation from homes and/or the area Human injury and health impacts Damage to property infrastructure	Incidents at the Site, would be managed in accordance with the measures set out within separate rows of this table (e.g. see fire/explosion row below). The Framework CEMP will outline the procedures required for safety during construction e.g. if a UXO is found during construction. Relevant legislation and industry good practice will be adhered to, along	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
				Key infrastructure Workers at COMAH Sites.		with standards outlined within Volume 1, Chapter 12: Major Accidents and Disasters , in order to avoid incidents.	
Fire/explosion (including from Unexploded Ordnance (UXO) or utility strike)	Construction, Operation and Decommissioning (if required)	Fire/Explosion	Fire on site Disturbance of UXO during construction leading to explosion	Workers, including temporary workers or visitors, on the Site Adjacent sensitive environmental receptors and human receptors in surrounding residential areas	Human injury and health impacts Serious harm to sensitive environmental receptors Damage to property and infrastructure	Fire safety and explosion risks at the Site will be managed in compliance with Health and Safety at Work etc Act 1974 (Ref. 3), Construction Design and Management (CDM) Regulations 2015 (Ref. 2), Regulatory Reform (Fire Safety) Order 2005, Management of Health and Safety at Work Regulations 1999 (Ref. 6), Building Regulations 2010 (Ref. 7) and	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
				Key infrastructure Proposed Scheme		relevant industry good practice. The compliance with the relevant legislation requires the completion of a fire risk assessment, including setting out emergency plans and procedures and measures for the safe storage and handling of any hazardous substances. The Framework CEMP will outline the procedures required if a UXO is found during construction. Further assessment and detail will be presented within the ES, as set out within Volume 1, Chapter 9:	

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						Ground Conditions of the EIA Scoping Report.	
Outage causing the Proposed Scheme to lose thermal energy	Operation	Power cut/ failure of generators Extreme weather event	Impact on the ability of the Proposed Scheme to function	Recipients of heat from the Proposed Scheme	Loss of access to heat supply	In the event of an outage of the anchor heat source (Riverside 1 and 2), the Proposed Scheme will be designed to remain operational for a limited period, subject to the availability of sufficient heat stored within the thermal store(s). If the outage is prolonged, or if the stored heat is depleted, the Proposed Scheme would be designed under a “fail safe” philosophy to ensure a smooth and safe shutdown in the event of a total loss of power.	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Ground or structural collapse	Construction, Operation and Decommissioning (if required)	Unforeseen events such as unidentified mine workings and/or underground faults	Collapse of MAP or Transmission Trunk Main or Branches	Workers, including temporary workers or visitors, on the Site Nearby sensitive environmental and residential receptors Key infrastructure Proposed Scheme	Human injury and health impacts Damage to property and infrastructure Serious harm to sensitive environmental receptors	These risks would be minimised through geotechnical design in accordance with relevant standards. Further assessment of the geotechnical and geo-environmental ground conditions underlying the Site would be undertaken as part of detailed geotechnical desk studies, a GIR and a GDR at detailed design. An assessment of risks associated with ground stability will be presented within the ES, as set out within Volume 1, Chapter 9:	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						Ground Conditions of the EIA Scoping Report.	
Pipeline Collapse or burst	Construction and Operation	Failure of pipeline or geotechnical solution during operation Pipeline Burst	Collapse of Transmission Trunk Main or Branches During the construction the pipeline could burst as a result of change in pressure or damage during construction	Workers, including temporary workers or visitors, on the Site Nearby sensitive environmental and residential receptors Key infrastructure Proposed Scheme	Human injury and health impacts Damage to property and infrastructure Serious harm to sensitive environmental receptors	The Proposed Scheme would be designed and operated in accordance with relevant legislation to minimise the risk of pipeline collapse and burst, such as the Construction Design and Management (CDM) Regulations (Ref. 4) and the Pressure Systems Safety Regulations 2000 (Ref. 8). Furthermore, these risks would be minimised through geotechnical design in accordance with relevant standards. Further assessment of the geotechnical and	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						geo-environmental ground conditions underlying the Site would be undertaken as part of detailed geotechnical desk studies, a GIR and a GDR at detailed design. An assessment of risks associated with ground stability will be presented within the ES, as set out within Volume 1, Chapter 9: Ground Conditions of the EIA Scoping Report. The Framework CEMP would also include measures related to unexpected water releases and how they would be controlled.	

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Major accidents caused by malicious acts/ vandalism against the Proposed Scheme, including public disorder/ industrial action, and malicious attacks on infrastructure	Construction, Operation and Decommissioning (if required)	Civil unrest or protest, including public mass transport strikes or public disorder Any attempt to expose, alter, disable, destroy, steal or gain unauthorised access to or make unauthorised use of an asset	Impact on the ability of the Proposed Scheme to supply heat to the recipients Direct impacts on workers	Workers, including temporary workers or visitors, on the Site Customers	Loss of access to heat supply Human injury and health impacts Serious contamination of sensitive environmental receptors	Security arrangements would be implemented for the safe operation of the Proposed Scheme, in line with industry good practice.	Out
Outbreak of disease including animal health-	Construction, Operation and Decommissioning	During construction an Influenza type disease (pandemic)	Influenza type disease (pandemic) outbreak could spread amongst the workers,	Workers onsite as well as the adjacent population	Human injury and health impacts	No Project-specific mitigation is identified. National and regional guidelines would be	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
notifiable disease, emerging infectious disease and pandemic influenza	ning (if required)	outbreak could occur	including temporary workers or visitors, on the Site	in surrounding residential areas		enforced on site as appropriate.	
Full or partial obstruction of emergency services	Construction	Temporary road closures or diversions	During construction works, temporary road closures or diversions could result in longer routes for emergency services	General public	Human injury and health impacts Delay of care to humans Delay in emergency response activities	An assessment to journey delays will be provided in the ES, as set out in Volume 1, Chapter 18: Transport of the EIA Scoping Report. Procedures to address any highway incidents or vehicle breakdown of construction traffic especially at peak times will be a requirement of the Framework CLP, which will be submitted	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
						with the DCO application.	
Impairment, interruption or severance of existing utilities	Construction	Accidental strike of a service connection	Groundworks could cause an accidental strike of a live service connection (e.g. sewer, water main, high-pressure gas main) by construction machinery	Workers, including temporary workers or visitors, on the Site Key infrastructure	Human injury and health impacts Serious harm to sensitive environmental receptors Serious contamination of non-human receptors Damage to infrastructure	The Draft DCO of the Proposed Scheme would include Protective Provisions for the protection of the assets of statutory undertakers whose infrastructure the Proposed Scheme crosses or is in close proximity to. The Framework CEMP will include the requirement for measures for the protection of existing utilities to be established, such as inspection pits and clearly demarcated clearances.	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Pollution incidents	Construction, Operation and Decommissioning (if required)	Flash flooding Surface water flooding Fuel spillage Accidental release of chemicals Ground Contamination	Pollution event (caused by construction related fuel spillage or movement of contaminated ground) in hydrologically connected watercourse. Pollution event related to release of ground contaminants migrating due to construction work e.g. via runoff Direct damage to surrounding environment by fuel spillage	Workers onsite as well as the adjacent population in surrounding residential areas Adjacent sensitive environmental receptors and human receptors in surrounding residential areas	Human injury and health impacts Serious harm to sensitive environmental receptors	Measures for pollution prevention and control will be set out within the Framework CEMP, including the requirement for an Emergency Response Plan to be prepared to manage any incidents. Measures for pollution prevention and control during operation would be embedded within sitedrainage documentation of the Proposed Scheme, to be submitted with the DCO Application.	Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
Structural damage/ ground settlement	Construction	Construction in close proximity to existing buildings, railway network and London underground lines	Damage to existing buildings and infrastructure through ground settlement	General public Railway users and workers Key infrastructure Proposed Scheme Site workers	Human injury and health impacts Damage to infrastructure	The Draft DCO of the Proposed Scheme would include Protective Provisions for the protection of the assets of statutory undertakers whose infrastructure the Proposed Scheme crosses or is in close proximity to, including Network Rail and TfL. Further assessment of the geotechnical and geo-environmental ground conditions underlying the Site would be undertaken as part of detailed geotechnical desk studies, a GIR and a GDR at detailed design. An assessment of risks associated with ground	Out
Railway Incident	Construction	Construction in close proximity to railway lines and stations	Interaction with railway lines, stations or the underground railway system	Railway infrastructure Railway users and workers Proposed Scheme	Human injury and health impacts Damage to infrastructure		Out

Risk Event	Phase	Source	Pathway	Receptor	Reasonable worst consequence if event did occur	Mitigation	Scope in or scope out
				Site workers		stability will be presented within the ES, as set out within Volume 1, Chapter 9: Ground Conditions of the EIA Scoping Report.	
Road traffic accident on the wider traffic network	Construction	Transport accident involving construction vehicles	Collision between construction vehicles and/or non-site related vehicles	Road users of the surrounding network.	Human injury and health impacts	During the construction phase, additional vehicles movements would be introduced onto the local highway network and could increase the risk of a road traffic accident occurring. This risk would be managed through the Framework CLP, to be submitted with the DCO Application.	Out

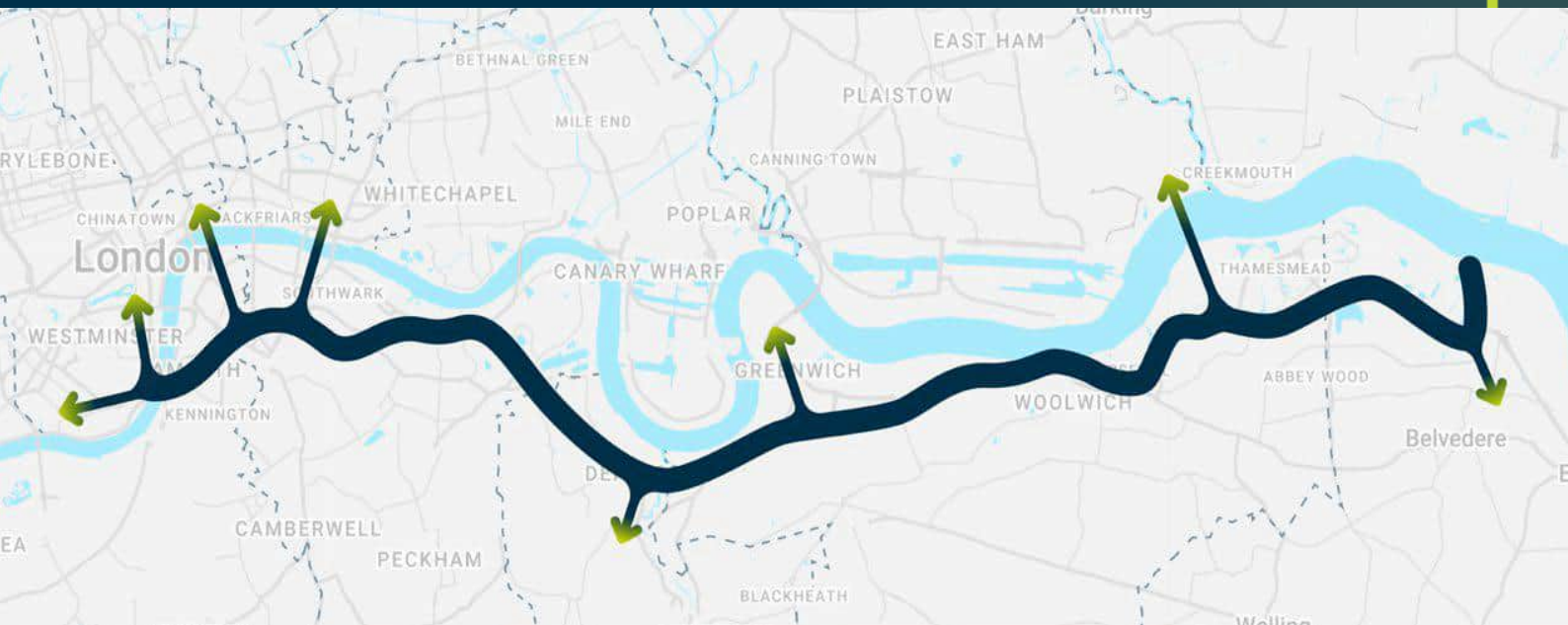
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Environmental Impact Assessment Scoping Report

Volume 3: Appendices

Appendix 19-1: Water Environment and Flood Risk Baseline



Cory Environmental Holdings Limited

July 2026

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1. Water Environment and Flood Risk Baseline

1.1 Baseline Conditions

- 1.1.1 This section describes the baseline environmental characteristics for the Proposed Scheme and surrounding areas. The Study Area for the assessment of likely significant effects from the Proposed Scheme on the water environment and flood risk is described in **Volume 1, Chapter 19: Water Environment and Flood Risk** of this EIA Scoping Report.

Data Sources

- 1.1.2 The water environment baseline conditions have been determined by a desk study of available information, and various online data sources including:
- a. online Ordnance Survey (OS) maps viewed to identify any surface water features within Study Area (Ref. 1);
 - b. online aerial photography (Ref. 2);
 - c. Thames Water Drainage and Wastewater Management Plan 2030 – 2055 (Ref. 3);
 - d. Thames Estuary 2100 online map (Ref. 4);
 - e. Multi Agency Geographical Information (MAGIC) map website; (Ref. 5);
 - f. British Geological Society (BGS) Geoindex website (Ref. 6);
 - g. Meteorological Office website, UK Climate Averages (Ref. 7);
 - h. BGS Borehole and Geology Mapping (Ref. 8);
 - i. Environment Agency Online Interactive Flood Maps:
 - i. Environment Agency Online Flood map for planning (rivers and sea) (Ref. 9);
 - ii. Environment Agency Online Risk of flooding from surface water (Ref. 10);
 - iii. Environment Agency Online Risk of flooding from reservoirs (Ref. 10); and
 - iv. Environment Agency Online Flood warning areas and risk (Ref. 10).
 - j. Department for Environment, Food and Rural Affairs (Defra) hydrology data explorer website (Ref. 11);
 - k. Environment Agency Public Registers website – Environmental Permitting Regulations – Discharges to water and groundwater (Ref. 12);

- l. Environment Agency Catchment Data Explorer website (Ref. 13);
- m. Environment Agency Water Quality Explorer (Ref. 14);
- n. UK Centre for Ecology and Hydrology (UKCEH) National River Flow Archive (Ref. 15);
- o. Statutory Main River Map (Ref. 16);
- p. Internal Drainage Board Map (Ref. 17);
- q. National Soil Resources Institute Soilsclapes (1:250,000) website (Ref. 18);
- r. National Library of Scotland Historical Imagery (Ref. 19);
- s. OSM Landuse Landcover maps (Ref. 20);
- t. Thames River Basin District River Basin Management Plan (RBMP) (Ref. 21); and
- u. United Kingdom Topographic map (Ref. 22).

- 1.1.3 A data request will be made to the Environment Agency for all licenced abstractions, consented discharges and category 3 (minor) or worse pollution incidents within the Study Area. This will be requested at a later stage and will be presented in the ES. A data request will be made to the Environmental Health Departments of all the local authorities within which the Study Area is located for information on any known surface water and groundwater Private Water Supplies (PWS) within the Study Area, this data will be presented in the ES.

Climate

- 1.1.4 The most recent available data for average annual rainfall estimates was taken from the Met Office website for the period 1991 to 2020 (Ref. 7). This suggests that the average annual total rainfall in the locality of the Proposed Scheme is around 563mm, based on the Greenwich Observatory station record (National Grid Reference (NGR) TQ 38913 77286) located centrally within the Study Area, in Greenwich Park. This is lower than the England Southeast regional average (1991-2020) of approximately 806mm (Ref. 7).
- 1.1.5 The distribution of rainfall throughout the year varied for the Study Area based on the Greenwich Observatory 1991-2020 record. The highest monthly average precipitation is likely to occur during November (c. 60mm) and October (c. 58mm). The driest months are expected to be on average March (c. 36mm) and July (c. 36mm).

Land Use and Topography

- 1.1.6 The land use across the Study Area is characteristic of a dense urban environment, comprising a mix of residential, commercial, recreational, and

some industrial uses. The Proposed Scheme commences in the east at the Riverside Campus (Riverside 1 & Riverside 2 energy from waste facilities (EfW)), located just north of Lower Belvedere. This area also consists of Crossness Sewage Treatment Works (STW), which has an outfall on the River Thames at NGR TQ4908780825. From here, it extends westward across Thamesmead, Woolwich, Charlton Riverside, East Greenwich, Greenwich, Canada Water, and Surrey Quays. Continuing further west, the route passes through Bermondsey, Southwark, and Waterloo, before crossing the River Thames. North of the river, the Proposed Scheme underlies Bishopsgate, Moorgate, Marylebone, Mayfair, Covent Garden, and Charing Cross, and continues into the historic areas of the City of Westminster and Kensington. In addition to these areas, the Proposed Scheme crosses the River Thames at nine locations (Ref. 5).

- 1.1.7 Generally, the Study Area is between 0 and 15m above sea level, with the land along the River Thames being between 0 and 5m above sea level. Given the relatively large size of the Study Area, the topography remains consistent throughout with a few exceptions. The Moorgate area rises to a peak of 20m above sea level and the Greenwich Observatory sits 40m above sea level, although most of the Royal Borough of Greenwich is between 0m and 5m above sea level. In the east of the Proposed Scheme, the two highest points are Maryon Park at 35m above sea level and Lesnes Abbey Wood at 50m above sea level, which is also the highest point of the whole Study Area (Ref. 5).

Hydrogeology

Superficial Aquifers

- 1.1.8 Alluvium associated with the River Thames forms the dominant superficial deposit along the river corridor, particularly across the eastern portion of the Study Area (see **Volume 2, Figure 19-4 Superficial Geology**). Tidal river or creek deposits are present along the banks of the River Thames. Flanking the alluvium on both sides of the River Thames are extensive spreads of the Kempton Park Gravel Member. Within these deposits, isolated pockets of Langley Silt Member and peat occur locally.
- 1.1.9 In the northwestern part of the Study Area, north of the River Thames, several sand and gravel members are present, including the Taplow Gravel Member, Hackney Gravel Member, and Lynch Hill Gravel Member. Note the Kempton Park Gravel Member, Taplow Gravel Member, Hackney Gravel Member, and Lynch Hill Gravel Member will be referred to collectively as River Terrace Deposits henceforth.

- 1.1.10 In the central part of the Study Area, near Greenwich Park, Head deposits are mapped along the southern edge of the alluvium and the Kempton Park Gravel Member. South of these Head deposits, the superficial deposits are absent.
- 1.1.11 Aquifer designations are presented in **Table 1-1**. The River Terrace Deposits are designated as Secondary A Aquifers and form the main superficial aquifer within the Study Area capable of supporting local water supplies and contributing to baseflow of the River Thames. These sand and gravel deposits are overlain by Alluvium, which can either act as a confining layer restricting vertical groundwater movement or, in places, remain in hydraulic continuity with the underlying River Terrace Deposits. Together, these superficial deposits are typically up to 10m thick and sit above the bedrock. Groundwater flow within these deposits will be through intergranular flow towards the River Thames however, locally flow may be influenced by groundwater abstractions from the gravels (currently unknown).

Bedrock Aquifers

- 1.1.12 The pipeline route intersects several geological formations across the Study Area. At the far eastern end of the Study Area, and again in the western part of the Study Area west of Bermondsey, the alignment passes through the London Clay Formation. Within the eastern and central part of the Study Area the Lambeth Group, the Thanet Formation, and Chalk Group, comprising the Lewes Nodular Chalk, Seafood Chalk, and Newhaven Chalk formations (undifferentiated) outcrop, see **Volume 2, Figure 19-5: Bedrock Geology**. The Harwich Formation is present along the southeastern boundary of the Study Area.
- 1.1.13 The London Clay Formation, acts as an aquiclude, separating the overlying superficial aquifer from the deeper Chalk dominated aquifer system which is confined beneath it. Environment Agency monitoring data in the western part of the Study Area indicates Chalk groundwater levels ranging from approximately -33m AOD to -41m AOD at Trafalgar Square monitoring station (ID: TQ28_119, NGR: TQ2997480507). In the central and eastern parts of the Study Area, where the London Clay is absent, the superficial aquifer is likely to be in hydraulic continuity with the underlying Secondary A and Principal Aquifers, particularly the Thanet Formation and the Chalk. At the Store Road monitoring station (ID: TQ47_99, NGR: TQ4307679844), Environment Agency data show Chalk groundwater levels to be shallow, between around 1.4m AOD and -0.5m AOD. The Lambeth Group exhibits highly variable lithology, comprising both permeable sand and gravel horizons and low permeability clay units, resulting in correspondingly variable hydrogeological behaviour.
- 1.1.14 Groundwater flow within the Lambeth Group occurs through discontinuous sand and gravel horizons interbedded with low-permeability clays, creating

complex and locally confined flow pathways. In contrast, the Thanet Sand supports relatively uniform intergranular flow through its fine-grained sands, which are hydraulically connected to the underlying Chalk. Groundwater movement within the Chalk is dominated by flow through fractures and solution-enhanced fissures, providing highly transmissive pathways. Groundwater flow direction will be influenced by groundwater abstractions (currently unknown).

Table 1-1. Geology and Aquifer Designations.

Stratum	Unit	Description	Aquifer Designation
Superficial geology	Alluvium	Clay, silt, sand and gravel	Secondary Undifferentiated
	Tidal River or Creek deposits	Clay, silt and sand	Unproductive Strata
	Kempton Gravel Member	Sand and gravel	Secondary A
	Langley Silt Member	Silty clay	Unproductive Strata
	Peat	Organic peat	Unproductive Strata
	Taplow Gravel member	Sand and gravel	Secondary A
	Hackney Gravel Member	Sand and gravel	Secondary A
	Lynch Hill Gravel Member	Sand and gravel	Secondary A
	Head	Clay, silt, sand and gravel	Secondary Undifferentiated
Bedrock	London Clay	Clay	Unproductive Strata
	Lambeth Group	Interbedded clay, silt and sand	Secondary A
	Thanet Formation	Sand	Secondary A

Stratum	Unit	Description	Aquifer Designation
	Lewes Nodular Chalk, Seaford Chalk, and Newhaven Chalk formations (undifferentiated)	Chalk	Principal
	Harwich Formation	Clays, sands and gravel beds	Secondary A
Definitions: Secondary A: aquifers comprise permeable layers that can support local water supplies, and may form an important source of base flow to rivers Secondary Undifferentiated: Secondary undifferentiated are aquifers where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. Unproductive strata: Unproductive strata are largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them.			

Surface Water Features

- 1.1.15 The EIA Scoping Boundary¹ is located within the Thames River Basin District (RBD) (Ref. 21) and within the London, Roding Beam and Ingrebourne and the Thames Transitional and Coastal (TraC) Management Catchment.
- 1.1.16 **Table 1-2** lists and summarises pertinent information on surface water bodies present within the Study Area, as shown in **Volume 2, Figure 19-1 Surface Water Receptors and their Attributes**. This table details the type of water body (for example if it is designated as a Main River or as an Ordinary Watercourse) and how the Proposed Scheme interacts with it. Main Rivers are typically larger rivers and streams where the Environment Agency is responsible for maintenance, improvement or construction work to manage flood risk (Ref. 16). All other watercourses are considered to be Ordinary Watercourses where the Lead Local Flood Authority (LLFA) carry out flood risk

¹ All references to 'EIA Scoping Boundary', correspond to the area shown in **Volume 2, Figure 1-1**.

management work. This distinction has relevance for whom is responsible for granting certain secondary consents as may be required when there are works close to, in, over or under watercourses.

- 1.1.17 Additionally, ponds are not considered as surface water bodies, but as a specific habitat type and considered in **Volume 1, Chapter 8: Ecology**.

Table 1-2 Summary of Surface Water Features in the 500m Study Area from West to East

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
River Thames (Thames Middle)	Main river (Estuary)	Thames Middle (GB530603911402)	Tidal Thames	Crossed by Proposed Scheme multiple times, flowing east, runs centrally through the whole length of the Proposed Scheme
The Westbourne	Ordinary Watercourse	Not within a WFD water body	Not within a WFD water body	Culverted watercourse within the Study Area, crosses Scoping Boundary in Ranelagh Gardens (NGR TQ 28305 78075, Chelsea, far western extent).
St James's Park Lake	Lake	Not within a WFD water body	Not within a WFD water body	Within the Study Area not within the EIA Scoping Boundary (NGR TQ 29647 79847, City of Westminster, western extent)
Buckingham Palace Garden Lake (The Westbourne)	Lake	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 28791 79521, City of Westminster, western extent)
Guildhall School of Music and Drama Lake	Lake	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 32449 81733, Barbican, western extent)

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
Spirit Quay Canal between Hermitage Basin and Shadwell Old Basin	Canal	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 34584 80411, Wapping, central-western extent).
St Saviour's Dock	Dockyard	Thames Middle (GB530603911402)	Tidal Thames	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 33948 79872, Bermondsey, central-western extent)
Albion Channel	Ordinary watercourse	Not within a WFD water body	Not within a WFD water body	Within the Study Area, connecting Surrey Water and Canada Water to the River Thames, not within the EIA Scoping Boundary (NGR TQ 35772 79733, Rotherhithe, central extent).
Canada Water	Artificial dock	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 35575 79381, Rotherhithe, central extent)
Greenland Dock and connected waterbodies (Surrey Commercial Docks)	Dockyard	Not within a WFD water body	Not within a WFD water body	Within the Study Area not within the EIA Scoping Boundary (NGR TQ 36015 79070, Rotherhithe, central extent)

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
Deptford Creek	Main river	Thames Middle (GB530603911402)	Tidal Thames	Crossed by Proposed Scheme, flowing north (NGR TQ 37833 77654, Greenwich, central extent)
Greenwich Peninsula Ecology Park Lake	Lake	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 40067 79269, Greenwich, central extent)
Broadwater	Main river	Not within a WFD water body	Not within a WFD water body	Within Study Area, not within the EIA Scoping Boundary (NGR TQ 44748 79608, Thamesmead, eastern extent)
Buzzards Mouth Sewer	Main river	Not within a WFD water body	Not within a WFD water body	Partially within Study Area, flowing south, not within the EIA Scoping Boundary (NGR TQ 46848 81856, Barking Riverside, eastern extent)
Marsh Dykes (Woolwich)	WFD waterbody and main river	Marsh Dykes (Woolwich) (GB106039023500)	Marsh Dykes	Crossed by Proposed Scheme three times, flowing north and west (NGR TQ 46403 81025, Thamesmead, eastern extent)
Birchmere	Lake	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Crossed by Proposed Scheme (NGR TQ 46449 79943, Thamesmead, eastern extent)

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
Thamesmere (Lake 4)	Lake	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Within Study Area, not within the EIA Scoping Boundary (NGR TQ 46517 80965, Thamesmead, eastern extent)
South Mere	Lake	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Adjacent to the Scoping Boundary, but not overlapped (NGR TQ 47634 80066, Thamesmead, eastern extent)
Harrow Canal / Waterfield Canal	Canal	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Crossed by Proposed Scheme, connects Crossway Lake to Thamesmere (NGR TQ 47178 80585, Thamesmead, eastern extent)
Crossway Lake	Lake	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 47684 81241, Crossness, far eastern extent)
Crossway Canal	Canal	Within Marsh Dykes (Woolwich) WFD catchment (GB106039023500)	Marsh Dykes	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 47587 81042, Crossness, far eastern extent)
Gores Brook	Main river and WFD water body	Gores Brook (GB106037028140)	Roding Beam and Ingrebourne	Within the Study Area, not within the EIA Scoping Boundary, flows south

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
				(NGR TQ 47989 82319, Dagenham, far eastern extent)
Great Breach Dyke and associated tributaries	Main river	Not within a WFD water body	Not within a WFD water body	Crossed by Proposed Scheme in four locations, flows north at Cross Ness Nature Reserve (NGR TQ 49407 80239, Lower Belvedere, far eastern extent)
Crossness Nature Reserve Lake	Lake	Not within a WFD water body	Not within a WFD water body	Within the Study Area, within Crossness Nature Reserve (NGR TQ4908780825, Lower Belvedere, far eastern extent)
Network of main rivers in ISIS Reach Industrial Estate, including Horse Head Dyke	Main rivers	Not within a WFD water body	Not within a WFD water body	Within the Study Area, not within the EIA Scoping Boundary (NGR TQ 50029 79787, Lower Belvedere, far eastern extent)
Beam and Ravensbourne	Main river and WFD water body	Beam and Ravensbourne (GB106037028100)	Roding Beam and Ingrebourne	Within the Study Area, not within the EIA Scoping Boundary, flows south (NGR TQ 49908 81758, Dagenham, far eastern extent)
Dagenham Breach	Lake	Within Beam and Ravensbourne (GB106037028100)	Roding Beam and Ingrebourne	Within the Study Area, not crossed by EIA Scoping Boundary (NGR TQ

Water Feature	Type of Water Feature	WFD water body catchment and ID	Operational Catchment	Relevance
				49547 82631, Dagenham, far eastern extent)

1.1.18 There are no flow gauging stations within the EIA Scoping Boundary, however there are flow gauges upstream of the Proposed Scheme on relevant watercourses. Details of these stations are given in **Table 1-3**.

Table 1-3 Summary of River Flows (Ref. 15)

Guage Ref, Name and NGR	Watercourse	Catchment Area (km2)	Mean Flow (m3/s)	Q10* (m3/s)	Q95^ (m3/s)	BFI+	Record Period
39001, Thames at Kingston, TQ 17780 69850	River Thames	9948	65.727	162	7.58	0.63	1883-2024
39056, Ravensbourne at Catford Hill, TQ 37225 73255	Ravensbourne	120.4	0.364	0.756	0.074	0.48	1977-2024
37001, Roding at Redbridge, TQ 41499 88348	River Roding (turns into Barking Creek)	303.3	1.831	4.51	0.207	0.39	1950-2024
37019, Beam at Bretons Farm, TQ 51533 85330	River Beam	49.7	0.34	0.759	0.069	0.38	1965-2024
*Q10: the flow that is equalled or exceeded 10% of the time – an index of high flow. ^Q95: the flow that is equalled or exceeded 95% of the time – an index of low flow. +BFI: the Base Flow Index (BFI) is a measure of the proportion of the river runoff that is derived from stored sources; the more permeable the rock, superficial deposits and soils in a catchment, the higher the baseflow and the more sustained the river's flow during periods of dry weather. Thus, the BFI is an effective means of indexing catchment geology.							

- 1.1.19 Based on the summary of the flow gauging stations in **Table 1-3**, noting that some of these are a distance upstream or downstream of the EIA Scoping Boundary, the majority of the catchments are considered to have a relatively low baseflow index. This means that baseflow is less important to sustaining flow, and indicating less permeable bedrock, superficial deposits and soils. These watercourses are more dependent on surface water runoff and are likely to be susceptible to periods of dry weather. The exception is the River Thames, which has a higher baseflow index.
- 1.1.20 The water features have several attributes that could be affected, including water quality and flow conveyance. They also support several services, including water supply, receipt and dilution of wastewater discharges, navigation and amenity.

Water Framework Directive

- 1.1.21 Details of the WFD waterbodies can be found in the **Water Framework Directive (WFD) Screening and Scoping Assessment**.
- 1.1.22 The Study Area covers areas of the Thames Middle transitional water body (GB530603911402), which is of moderate ecological status. Physical modifications and point and diffuse source pollutions are reasons for not achieving a good status within the water body. In addition to this within the Study Area there are the Marsh Dykes (Woolwich) Water Body (GB106039023500), Gores Brook Water Body (GB106037028140) and Beam and Ravensbourne Water Body (GB106037028100). These are all classified as being heavily modified with moderate ecological status. The location of these water bodies can be seen in **Volume 2, Figure 19-2 Water Framework Directive Surface Water Bodies**.
- 1.1.23 The Study Area is located within the Greenwich Tertiaries and Chalk Groundwater Water Body (GB40602G602500) which is currently of poor quantitative status and poor chemical status attributed to groundwater abstraction and saline intrusion. In Lower Belvedere, the Study Area is within the South Essex Thurrock Chalk Groundwater Water Body (GB40601G401100) which is also of poor quantitative and chemical status for the same reasons. The location of these water bodies can be seen in **Volume 2, Figure 19-3 Water Framework Directive Groundwater Bodies**.

Hydromorphology

- 1.1.24 The THAMES MIDDLE (GB530603911402) is a heavily modified transitional water body with an area of 44.16km² that flows entirely through an urban area.

The watercourse is modified for coastal protection, flood protection and navigation, ports and harbours, and therefore lacks a natural hydromorphological regime due to the extensive modifications.

- 1.1.25 Marsh Dykes (Woolwich) Water Body (GB106039023500) flows entirely through an urban area. The watercourse is culverted at several points throughout the catchment due to road and rail crossings, and under residential areas.
- 1.1.26 Gores Brook Water Body (GB106037028140) flows entirely through an urban area. The watercourse is culverted at several points throughout the catchment due to road and rail crossings.
- 1.1.27 Beam and Ravensbourne Water Body (GB106037028100) water body flows through an urban landscape and is crossed by multiple roads and railway lines, which may contribute to its heavily modified status.

Water Resources, Abstractions and Discharges

- 1.1.28 There is one Drinking Water Protected Areas (DrWPA) in the Study Area. DrWPA are locations identified by the WFD where raw water is abstracted for human consumption (Ref. 5). The DrWPA is the Thames Middle (GB530603911402) and is currently not at risk, its location is shown in **Volume 2, Figure 19-1 Surface Water Features and their Attributes**.
- 1.1.29 There are no Drinking Water Safeguard Zones or Nutrient Neutrality Catchments within the Study Area (Ref. 5).
- 1.1.30 There are no Nitrate Vulnerable Zones (NVZ) within the Study Area, however there are two within 1.5km of the Study Area. Lee NVZ (ID: 443) to the north, near Canning Town and Southall Sewer and Runningwater Brook NVZ (ID: 802) to the east, covering Rainham Marshes (Ref. 5). Due to the nature of the Proposed Scheme, it is unlikely to affect nitrate concentrations in local watercourses, therefore, no further consideration of NVZ is proposed.
- 1.1.31 No information is available at this scoping stage regarding specific licensed abstractions and consented discharges to/from the surface water and groundwater environment. However, this will be requested from the Environment Agency and included in the baseline for the ES.
- 1.1.32 There are three Source Protection Zones (SPZ) 1 within the Study Area. Two within the western end of the Study Area to the west of and south of the City of Westminster. These two SPZ1 are surrounded by an SPZ2 however no SPZ3 is associated with these abstractions. These SPZ are likely to be associated with abstractions from the underlying Chalk, not the London Clay itself. A third SPZ1 and associated SPZ2 and SPZ3 is present in the Deptford

area and extending south towards Lewisham, see **Volume 2, Figure 19-6 Groundwater Features and their Attributes.**

1.1.33 Source Protection Zones are defined as follows:

- a. SPZ1 – Inner Protection Zone is defined as the 50-day travel time from any point below the water table to the source.
- b. SPZ2 – Outer Protection Zone is defined by a 400-day travel time from any point below the water table to the source.
- c. SPZ3 - Source Catchment Protection Zone is defined as the area around a source within which all groundwater recharge is estimated to discharge at the source.

Water Quality

1.1.34 Within the Study Area, there are eight water quality monitoring stations (Ref. 14). **Table 1-4** provides a summary of the stations. Relevant data will be used to inform the baseline at subsequent stages of assessment.

Table 1-4 Summary of Water Quality Monitoring Stations in the Study Area

Station Name	NGR	Summary
Thames At London Bridge	TQ 32901 80499	2025, ammoniacal nitrogen, hydrocarbons, metals, dissolved organic carbon, chlorophyll, nitrate, nitrite, nitrogen, orthophosphate, dissolved oxygen, perfluoro-, phytoplankton, salinity, silicate, temperature, turbidity, depth
WFD Fish Trac - Thames at Greenwich	TQ 38503 78000	September 2025, dissolved oxygen, pH, salinity, depth and temperature
Thames At AWQMS Barrier Gardens Pier Woolwich	TQ 4182 779394	2025 and 2026, dissolved oxygen, pH, salinity and temperature
D/S Southmere Lake, Thamesmead	TQ 47401 79797	2025 and 2026, alkalinity, ammonia, ammoniacal nitrogen, conductivity, nitrate, nitrite, nitrogen, orthophosphate, dissolved oxygen, pH and temperature

Station Name	NGR	Summary
Crossness WwTW Settled Storm Sewage Outlet 2	TQ 4831 380925	December 2025, annual flow and overflow readings
Crossness STW (24 Hour Composite)	TQ 4908 780825	2025 and 2026, ammoniacal nitrogen, Biological Oxygen Demand (BOD), chemical oxygen demand, population equivalent and suspended solids
Beam At Havering Sluice	TQ 4991 981551	2025 and 2026, fluoro- compounds, perfluoro- compounds, ammoniacal nitrogen, metals, hexafluoro-compounds, nitrate, nitrite, nitrogen, orthophosphate, PCBs and suspended solids
Misc.10km SQ Upminster.Tq58	TQ 5000 079995	August and September 2025, ammonia, ammoniacal nitrogen, BOD, chemical oxygen demand, chloride, nitrate, nitrogen, orthophosphate, dissolved oxygen, pH, salinity, suspended solids and temperature

Groundwater Quality

- 1.1.35 In the superficial aquifers (Alluvium and River Terrace Deposits), groundwater quality is vulnerable to urban influences, with potential elevated concentrations of nutrients, hydrocarbons, metals and solvents due to historical industrial land use, dense infrastructure and leakage from underground services. These shallow units often show higher variability and quicker responses to surface contamination because of their relatively high permeability and limited natural protection.
- 1.1.36 Groundwater quality within the Chalk aquifer beneath central London is characterised by hard, alkaline water with naturally low contaminant levels, but it is influenced by natural geochemistry and long-term urban pressures. Elevated chloride, sulphate and nitrate may occur due to historical abstraction, urban recharge, infrastructure leakage and, where the London Clay is thin or absent, downward migration of poorer quality shallow groundwater from the River Terrace Deposits. The Chalk is also susceptible to saline intrusion due to groundwater abstractions.

Ecological Potential of Water Features

Designated Nature Conservation Sites

- 1.1.37 There are seven statutory and non-statutory designated ecological sites within either the EIA Scoping Boundary or the 500m Study Area. Within the EIA Scoping Boundary, there is one Local Nature Reserve (LNR) and within the 500m Study Area there is one Site of Special Scientific Interest (SSSI) and five LNR. A summary can be found in **Table 1-5**.
- 1.1.38 There are no Special Protection Areas, RAMSAR sites or Special Areas of Conservation within the Study Area.

Table 1-5 Summary of Designated Sites (SSSI and LNR) within the 500m Study Area

Site Name	Approx NGR and Location relative to Proposed Scheme	Main Habitat and/or Reason for Designation	Hydrological Importance or flow path between site and Scoping Boundary
Gilbert's Pit (Charlton) SSSI, 1006903	TQ 41895 78634, within 10m of EIA Scoping Boundary	Geology - Palaeogene	No, as not considered to be dependent on the quality and flow of water in any watercourse.
Crossness LNR	TQ 49292 80246, located within the EIA Scoping Boundary.	A network of ditches and open water, scrub and rough grassland	Yes , hydrologically dependent, directly above the Proposed Scheme.
Maryon Wilson Park & Gilbert's Pit LNR	TQ 41886 78654, located partially within the Study Area, approximately 10m south from the EIA Scoping Boundary	A mix of acid grassland, abundant mouse-ear hawkweed and an assemblage of burrowing hymenoptera (bees and wasps) and geology - Palaeogene	No, as not considered to be dependent on the quality and flow of water in any watercourse.

Site Name	Approx NGR and Location relative to Proposed Scheme	Main Habitat and/or Reason for Designation	Hydrological Importance or flow path between site and Scoping Boundary
Sue Godfrey Nature Park LNR	TQ 37440 77472, Within Study Area, approximately 80m south from the EIA Scoping Boundary	A mixture of rough grassland, scrub and ruderal vegetation. More than 200 species of wildflowers, shrubs and trees.	No, as not considered to be dependent on the quality and flow of water in any watercourse.
Battersea Park Nature Areas LNR	TQ 28572 77521, Located partially within the Study Area, approximately 300m south from the Scoping Boundary	Range of woodland bird species, invertebrates and notable species of invertebrates.	No, as not considered to be dependent on the quality and flow of water in any watercourse.
Lesnes Abbey Woods LNR	TQ 48576 78903, located partially within the Study Area, approximately 440m south from the Scoping Boundary	Ancient woodland with a wide diversity of invertebrates and birds.	No, as not considered to be dependent on the quality and flow of water in any watercourse.
Russia Dock Woodland LNR	TQ 36156 79187, Located partially within the Study Area, approximately 455m northeast from the Scoping Boundary	Mixture of habitats, including Ponds & Woodland.	Yes , hydrologically dependent, within a distance of possible influence with a flowpath.

1.1.39 Additionally, there are a further four LNRs within the 1km Study Area, these are Stave Hill Ecology Park, Mudchute Park Farm, Ripple and Scrattons

Ecopark and Extension. Of these, Stave Hill Ecology Park, Mudchute Park Farm and Ripple are hydrologically dependent. However, only Stave Hill Ecology Park (NGR: TQ 36101 79768) is within a distance of possible influence with a flow path, and therefore is the only LNR over 500m from the Proposed Scheme which will be considered within the assessment.

- 1.1.40 Inner Thames Marshes SSSI and West Thurrock Lagoon & Marshes SSSI are located 4.5km and 8.5km, respectively, downstream of the Proposed Scheme. Due to their distance, they are not considered to be impacted by the Proposed Scheme.

Priority Habitats

- 1.1.41 There are number of priority habitats within the 500m Study Area, these include mudflats and reedbeds along the River Thames, coastal and floodplain grazing marshes at Erith Marshes, Crossness Nature Reserve and local to the Ripple Nature Reserve. There are no known chalk rivers.

Groundwater Dependent Terrestrial Ecosystems

- 1.1.42 There are no Groundwater Dependent Terrestrial Ecosystems (GWDTE) within the Study Area. Two GWDTE, Inner Thames Marshes Site of Special Scientific Interest (SSSI) and Ingrebourne Marshes SSSI, are located 0.48km and 1.6km east of, and down gradient of, the Study Area.

Flood Risk

- 1.1.43 The Environment Agency publishes online floodplain maps (Ref. 23). These maps show the possible extent of fluvial flooding for a 1 in 100-year flood (1% annual probability of occurrence) and the possible extent of tidal flooding associated with a 1 in 200-year event (0.5% annual probability of occurrence), ignoring the presence of flood defences. Also shown is the possible extent of flooding arising from a 1 in 1,000-year event (0.1% probability). Flood Zones are defined by the Environment Agency as the following:
- a. Flood Zone 1: Low probability, land having a less than 0.1% annual probability of river or sea flooding;
 - b. Flood Zone 2: Medium probability, land having between a 1% and 0.1% annual probability of river flooding; and
 - c. Flood Zone 3: High probability, land having a 1% or greater annual probability of river flooding.
- 1.1.44 The flood risk from all sources for the Proposed Scheme is summarised in **Table 1-6** below and can be seen in **Volume 2, Figure 19-7: Fluvial and Tidal Flood Risk** and **Volume 2, Figure 19-8: Surface Water Flood Risk**. The

Environment Agency online interactive maps have been used to obtain information on sources of flooding.

Table 1-6 Flood Risk Overview

Flood sources	Risk	Pre-Scheme Flood Risk	Comments
Fluvial	Low High	–	The majority of the EIA Scoping Boundary is located within Flood Zone 3. While substantial portions of the area fall within this zone, they are considered to benefit from the London Tidal Defences and are therefore situated within a defended flood zone. The tidal defences are managed and maintained in accordance with the Thames Estuary 2100 (TE2100) Plan (Ref. 24).
Tidal	Low High	–	The majority of the EIA Scoping Boundary is located within Flood Zone 3. The River Thames flows through the centre of London and provides protection against extreme tidal events through its system of defences. These tidal defences are managed and maintained in accordance with the Thames Estuary 2100 (TE2100) Plan (Ref. 24). The likelihood of a breach of the London tidal defences is considered low.
Surface Water	Low- High		There are isolated areas of both low and high flood risk within the EIA Scoping Boundary. However, these are likely associated with localised low-lying topography where surface water accumulates in depressions and ponds, rather than entering the surrounding surface water drainage network.
Groundwater	Low High	–	There is a high risk of groundwater flooding across the transmission pipeline at the majority of transmission spots. Groundwater flooding occurs when water rises from underlying aquifers or emerges from abnormal springs, typically following prolonged periods of sustained rainfall, with

Flood sources	Risk	Pre-Scheme Flood Risk	Comments
			low-lying areas most at risk due to shallow water tables. Within the Study Area, the primary mechanisms include elevated groundwater levels in the Chalk, London Clay and Thanet Sand Formation aquifers and their hydraulic interaction with superficial deposits, as well as flooding from superficial aquifers both isolated from and hydraulically connected to surface watercourses, bedrock aquifers, and the River Thames. An additional potential source arises where superficial sand and gravel deposits are perched on clay strata, as these localised aquifers can become saturated during extended intense rainfall, leading to flooding at the ground surface.
Sewer	Low High	–	Under current Thames Water standards, sewer systems are typically designed and constructed to accommodate a 1 in 30-year rainfall event. Hence, during rainfall events of greater than a 1 in 30-year return period, the sewer system may be susceptible to surcharge and flooding. Additionally, drainage systems across. Each Borough SFRA shows there are spots which have had historical sewer flooding. London's sewers are of varying age and capacity, with many parts of the system thought to be designed to accommodate a 1 in 15-year return period rainfall event or less.
Reservoir	Low High	–	A reservoir is a large natural or artificial storage area used to store water. There are areas within the EIA Scoping Boundary which are at risk of flooding from reservoir failure. Locations, which are at risk of reservoir failure, are nearby water storage areas. Reservoir flood risk is considered a low residual risk, as it is expected the

Flood sources	Risk	Pre-Scheme Flood Risk	Comments
			reservoir will be maintained and managed within a formal inspection regime.

Future Baseline

- 1.1.45 The future baseline relates to known or anticipated changes to the current baseline in the future which would develop in the absence of the Proposed Scheme and should be considered in the ES.
- 1.1.46 Climate change is likely to lead to significant changes in hydrological conditions within the Study Area over the lifetime of the Proposed Scheme. Outputs from UKCP18 (Ref. 25) and the Future Flows and Groundwater Levels Project (Ref. 26) will be used to assess likely changes in ambient conditions for the purposes of the future baseline. For the FRA, the impacts of climate change on future flood risk would be assessed in line with current Environment Agency guidance (Ref. 27). Appropriate climate change allowances from this guidance would be incorporated into assessments of future baseline flood risk. This would be factored into the design of flood resilience and mitigation measures and drainage systems for the lifetime of the Proposed Scheme.
- 1.1.47 Changes in environmental legislation or the introduction of new standards under the Environment Act 2021 (Ref. 28) may drive future improvements in the ecological and chemical quality of water features, building on the implementation of future cycles of River Basin Management Plans (RBMPs). However, while the general water quality and health of aquatic ecosystems had been improving due to stricter planning policies and regulations, in recent years this positive trend is facing challenges. Climate change, population growth, a lack of recent investment in foul sewage treatment and sewer capacity, and the emergence of new chemicals and pollutants are all working against these improvements.
- 1.1.48 Despite these countering factors, it is not expected that the future baseline will significantly alter the overall importance of water features. Their significance is largely determined by attributes like their size, specific designations or presence of important fish populations or relevant protected species, or third party uses, and not water quality at any given time. The approach is therefore less sensitive to more subtle longer-term changes in water quality per se driven by climate change or stricter environmental regulation and standards.

- 1.1.49 The effects of known future development that share the same hydrological catchments as the Study Area would also be considered, in terms of the potential for these developments to impact on the status of water receptors as part of the cumulative effects assessment that will be reported in the ES. **Chapter: 20 Approach to Cumulative Effects** sets out the approach to the cumulative effects assessment.

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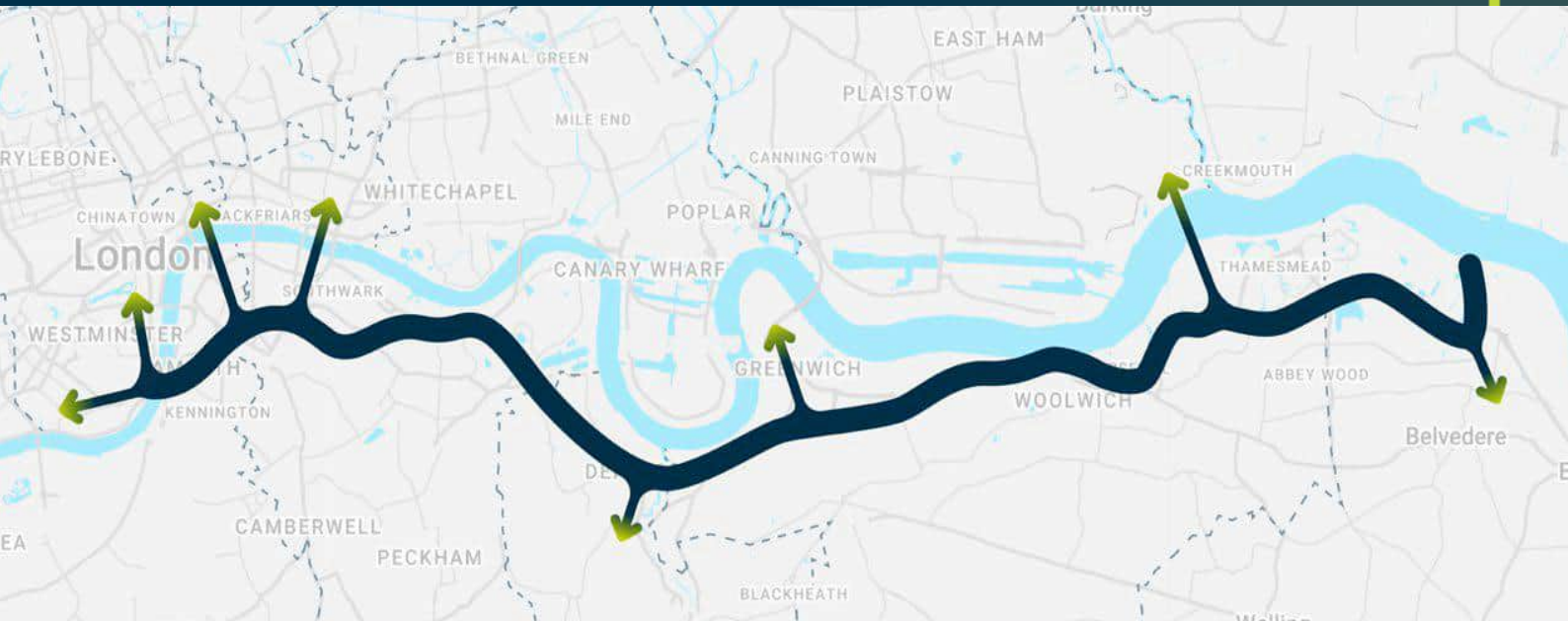
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Environmental Impact Assessment Scoping Report

Volume 3: Appendices

Appendix 21-1: Commitments Register



Cory Environmental Holdings Limited

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1. EIA Scoping Commitments Register

1.1 Introduction

- 1.1.1 The purpose of the Commitments Register is to track commitments made throughout the planning process for the Proposed Scheme. The register ensures that all identified monitoring requirements, mitigation measures, and responsibilities are clearly documented throughout the development of the Proposed Scheme. By maintaining a comprehensive record of all commitments, this register will serve as a critical tool in ensuring that mitigation measures are effectively tracked, implemented, and monitored throughout the lifecycle of the Proposed Scheme.
- 1.1.2 The first iteration of the Commitments Register is submitted with the Environmental Impact Assessment (EIA) Scoping Report and lists out any commitments made within that document which have been relied upon for scoping matters out of the EIA or for refining the scope of assessment. Subsequently, the Commitments Register will be updated at each stage of the planning process, including as part of the Environmental Statement (ES) and during examination of the Development Consent Order (DCO) Application, as required by the Examining Authority.
- 1.1.3 This Commitments Register has been prepared in accordance with guidance provided by the Planning Inspectorate (PINS), specifically, their Nationally Significant Infrastructure Projects: Commitments Register guidance (Ref. 1).
- 1.1.4 This Commitments Register includes the commitments made at this scoping stage in relation to Proposed Scheme design and management measures. Assumptions (including methodological) are not included at this stage, whilst the EIA process continues.

1.2 Purpose and Structure

- 1.2.1 **Table 1:** Commitments Register for Scoping Out Matters sets out the commitments made during the EIA Scoping Process. **Table 1:** Commitments Register for Scoping Out Matters includes the following components in accordance with the PINS template for commitments registers (Ref. 2):
- Commitment Reference Number** – A unique reference identifier for the commitment.
 - Commitment and EIA Scoping Report Reference** – A description of the commitment and reference to its location within the EIA Scoping Report. The Commitments Register at EIA Scoping only includes commitments which have been relied upon for scoping out matters or for refining the scope of assessment.

- c. **Monitoring** – Indicates whether monitoring is necessary to ensure compliance with the commitment.
- d. **Phase of Proposed Scheme** – The stage of the Proposed Scheme at which the commitment applies (e.g. detailed design, pre-construction, construction, operation).
- e. **Topic** – The primary subject area related to the commitment¹.
- f. **Relevant Sub-Topic** – The secondary subject area(s) to which the commitment applies.
- g. **Commitment Securing Mechanism** – How the commitment will be secured through the DCO Application. This will be confirmed within the ES and therefore has not been included in this document.
- h. **Delivery** – Identifies the expected entity responsible for fulfilling the commitment, e.g. whether it is the Contractor or the Applicant.
- i. **Associated Supporting Documentation** – This column will be completed within the ES with specific document references from the DCO Application.
- j. **Compliance Date and Details** – This column is expected to be completed post-DCO consent, if granted, to indicate when compliance with the commitment has been achieved.

¹ If the same commitment is referenced in multiple chapters, it is only included once in the register under the primary topic (except by exception), with the secondary topics column listing which other environmental assessments the mitigation is also relevant for.

Table 1: Commitments Register for Scoping Out Matters

Comm. Ref	Commitment and EIA Scoping Report Reference	Monitoring	Phase of Proposed Scheme	Primary Topic	Relevant Sub- topics	Delivery
GE-01	Thermal impacts of the underground pipeline network on the River Thames, its tidal tributaries, and other surface water and groundwater receptors are scoped out on the basis that: <i>‘The London SHM will be located at a minimum depth of 5m below the riverbed’</i> (Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.5) <i>‘To ensure that the Proposed Scheme operates effectively and efficiently it all pipes/tunnels will be sufficiently insulated to minimise any heat loss. Therefore, there will be negligible thermal loss/emissions.’</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6 and Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.8)	N/A	Detailed Design	Water Environment and Flood Risk Marine Environment	Ecology	Applicant
EC-1	Direct mortality/harm to species is scoped out on the basis that: <i>‘During construction, any effects would be controlled through compliance with existing legislation and implementation of the CEMP. During operation and maintenance works, the potential for direct harm or mortality of species is minimal.’</i> (Volume 1, Chapter 8: Ecology – Section 8.9)	Monitoring requirements will be set out in the Framework Construction Environmental Management Plan (CEMP).	Construction/ Operation	Ecology	N/A	Applicant/ Contractor
GC-1	Operation phase effects associated with impacts on land quality are scoped out on the basis that: <i>‘Good housekeeping and management practices will be adopted and adhered to through the operation phase to minimise impacts to soil and groundwater. Details of these measures will be set out within the DCO Application.’</i> (Volume 1, Chapter 9: Ground Conditions – Section 9.7)	N/A	Operation	Ground Conditions	Human Health Water Environment and Flood Risk	Applicant
MAD-1	Major accidents and disasters assessment is scoped out of the EIA, for several reasons, including: <i>‘The design, construction, operation (and decommissioning, if required) arrangements of the Proposed Scheme will be required to comply with all relevant health and safety and environmental legislation.’</i> (Volume 1, Chapter 12: Major Accidents and Disasters – Section 12.6)	Any monitoring requirements will be undertaken in compliance with relevant legislation.	All phases	Major Accidents and Disasters	N/A	Applicant/ Contractor

Comm. Ref	Commitment and EIA Scoping Report Reference	Monitoring	Phase of Proposed Scheme	Primary Topic	Relevant Sub- topics	Delivery
MAD-2	Major accidents and disasters assessment is scoped out of the EIA, for several reasons, including: <i>‘The Draft Development Consent Order (DCO) of the Proposed Scheme would include Protective Provisions for the protection of the assets of statutory undertakers whose infrastructure the Proposed Scheme crosses or is in close proximity to, such as Transport for London’s London underground lines, Network Rail’s assets, electricity, telecommunications and water networks.’</i> (Volume 1, Chapter 12: Major Accidents and Disasters – Section 12.6)	N/A	Detailed Design	Major Accidents and Disasters	N/A	Applicant
MAD-3	Major accident and disasters assessment is scoped out of the EIA for several reasons, one of these being on the basis that the following management measures are implemented: <i>‘Construction activities across the Proposed Scheme would be managed in compliance with standard good practice measures to be set out within the Framework Construction Environmental Management Plan (CEMP) to be submitted with the DCO Application, which will include details with regards to pollution prevention and incident response. Construction traffic management measures will be set out within a Framework Construction Logistics Plan (CLP).</i> <i>Furthermore, for the proposed infrastructure at Riverside Campus, good industry practice safety, security and emergency arrangements would be implemented at the site.’</i> (Volume 1, Chapter 12: Major Accidents and Disasters – Section 12.6)	Requirements to be confirmed in the ES	Construction/ Operation	Major Accidents and Disasters	Ground Conditions Water Environment and Flood Risk Transport	Applicant/ Contractor
ME-1	The assessment of likely significant effects on the marine environment are scoped out on the basis that several precautions are taken, including: <i>‘No works will be undertaken below Mean High Water Spring (MHWS). As set out in Volume 1, Chapter 2: Proposed Scheme, all river crossings will be underground, below the riverbed. Minimum tunnelling depths will be adhered to (i.e. a minimum depth of approximately 5 m).’</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6 and Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.8)	N/A	Detailed Design	Marine Environment	Water Environment and Flood Risk	Applicant
ME-2	The assessment of likely significant effects on the marine environment is scoped out on the basis that several precautions are taken, including: <i>‘No river transport will be used.’</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6)	N/A	Construction	Marine Environment	Transport	Applicant/ Contractor

Comm. Ref	Commitment and EIA Scoping Report Reference	Monitoring	Phase of Proposed Scheme	Primary Topic	Relevant Sub- topics	Delivery
ME-3	The assessment of likely significant effects on the marine environment is scoped out on the basis that several precautions are taken, including: <i>'No in-river geotechnical surveys are planned.'</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6)	N/A	Detailed Design / Pre-Construction	Marine Environment	Ground Conditions	Applicant/ Contractor
ME-4	The assessment of likely significant effects on the marine environment is scoped out on the basis that several precautions are taken, including: <i>'There are no planned intakes from or discharges to the River Thames; No works are required at the Riverside Campus as part of the Proposed Scheme that have any interactions with intakes from, or discharges to the River Thames.'</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6 and Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.8)	N/A	Detailed Design/ Construction/ Operation	Marine Environment	Water Environment and Flood Risk	Applicant/ Contractor
ME-5	The assessment of likely significant effects on the marine environment is scoped out on the basis several precautions are taken, including the following management measures: <i>'Land-based activities related to the Proposed Scheme with the potential to pollute controlled waters, including via existing drainage infrastructure, are assumed to be appropriately controlled at source. Control measures to this effect will be included in the Framework CEMP that will be submitted with the DCO Application. Any emissions (dust, noise, light) from onshore works (above MHWS) associated with construction compounds and tunnel entry and exit locations will be managed in accordance with recognised standard best practice, details of which will be set out in the Framework CEMP that will be submitted with the DCO Application.'</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6)	Monitoring requirements will be set out within the Framework CEMP	Construction	Marine Environment	Water Environment and Flood Risk	Applicant/ Contractor
ME-6	The assessment of likely significant effects on the marine environment is scoped out on the basis that several precautions are taken, including: <i>'All excavated material (from tunnelling) will be managed onshore in accordance with standard industry regulations and best practice. There will be no interaction with the marine environment.'</i> (Volume 1, Chapter 13: Marine Environment – Section 13.6)	N/A	Construction	Marine Environment	Materials and Waste	Applicant/ Contractor

Comm. Ref	Commitment and EIA Scoping Report Reference	Monitoring	Phase of Proposed Scheme	Primary Topic	Relevant Sub- topics	Delivery
TVIA-1	The assessment of likely significant effects on townscape and visual receptors are partially scoped out, as only the infrastructure at the Riverside Campus has the potential to permanently significantly alter visual amenity, and not the MAP locations. This is done on the basis that: <i>‘...the [limited] scale and extent of permanent above ground MAP infrastructure. Furthermore, the maximum height of the proposed infrastructure at the Riverside Campus associated with the Proposed Scheme would not exceed that of the surrounding existing infrastructure. The height parameters would be reviewed prior to the completion of the ES.’</i> (Volume 1, Chapter 17: Townscape and Visual – Section 17.8) <i>‘The maximum height of proposed infrastructure at Riverside Campus will be 53m in height and will not exceed the current height of existing Riverside Campus.’</i> (Volume 1, Chapter 2: Proposed Scheme – Section 2.5)	N/A	Detailed Design	Townscape and Visual	Historic Environment Human Health Socio-Economics	Applicant
WE-1	Foul drainage effects are scoped out on the basis that: <i>‘No new sewer network connections are proposed. Foul wastewater would instead be stored in self-contained foul drainage system for off-site disposal. There will be no new discharges of treated foul water during construction or operation.’</i> (Volume 1, Chapter 19: Water Environment and Flood Risk – Table 19-8)	N/A	Detailed Design/ Construction/ Operation	Water Environment and Flood Risk	N/A	Applicant/ Contractor
WE-2	Provision of potable water supply for offices/maintenance facilities during operation is scoped out on the basis that: <i>‘...water required for operation and maintenance of the offices and facilities will not require a new mains water supply connection. The required water for the development will be provided by the previously identified Riverside Campus suppliers and by a new supply agreement to be arranged with the Local Water Undertaker (Thames Water). If this changes then relevant abstraction licences would be obtained, following consultation with relevant authorities.’</i> (Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.8)	N/A	Detailed Design/ Operation	Water Environment and Flood Risk	N/A	Applicant

Comm. Ref	Commitment and EIA Scoping Report Reference	Monitoring	Phase of Proposed Scheme	Primary Topic	Relevant Sub- topics	Delivery
WE-3	The scoping out of likely significant effects on surface waterbody receptors is based on: <i>‘...open cut methodologies will not be employed for WFD surface water body crossings.’</i> (Volume 1, Chapter 19: Water Environment and Flood Risk – Section 19.8)	N/A	Detailed Design/ Construction	Water Environment and Flood Risk	N/A	Applicant/ Contractor

1.3 References

- Ref. 1 Planning Inspectorate (2024) Guidance Nationally Significant Infrastructure Projects: Commitments Register. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-commitments-register> [Accessed 14 May 2026].
- Ref. 2 Planning Inspectorate (2024) Commitments Register Template. Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fmedia%2F66ea928fc069f68b7681bcef%2FCommitments_Register_Template.odt&wdOrigin=BROWSELINK [Accessed 14 May 2026].