Annex E: Scoped Out Topic Sheets

TOPIC SHEET

Archaeology

Introduction

1 A Baseline Archaeological Desk Based Assessment (DBA) has been prepared by MOLA to inform this topic sheet and has been provided as **Annex F** of this EIA Scoping Report. Based on the results, it is considered that the potential for significant effects relating to Archaeology for the Proposed Development is minimal.

2 This topic is **scoped out** of the EIA.

Baseline Conditions

3 The site does not contain any nationally designated (protected) heritage assets, such as World Heritage sites, Scheduled Monuments, Listed Buildings or Registered Parks and Gardens. A 500m radius study area around the site's centre point was considered by professional judgement[1] as a sufficient size to provide an evidence-base to establish the archaeological character of the site. Within this study area there are no World Heritage sites or Scheduled Monuments. The Grade I Registered Regent's Park and Garden is 400m to the west of the site. The nearest Listed Building is the Grade II Listed Numbers 63–68 Warren Street and attached railings, 80m to the south of the site.

4 The site is not in an Archaeological Priority Area (APA). The Tier 2 Regents Canal and Rail Infrastructure APA is 450m north-west of the site. The Tier 3 Regent's Park APA is 400m to the west of the site.

5 There are no known burial grounds in the site. The nearest burial ground is St James's Garden cemetery, 300m to the north-east of the site.

6 The topography of the site is relatively flat with levels recorded between 27.6m and 27.7m Above Ordnance Datum (AOD). According to British Geological Survey (BGS) digital data the geology of the area comprises Thames Gravels of the Lynch Hill Formation. Lynch Hill gravels are known to have potential for isolated finds of Palaeolithic stone tools.

7 Greater London Historic Environment Record (GLHER) data was ordered, and received on 17th February 2023 (GLHER Licence 17627) and has been used to inform this topic sheet as summarised below.

8 One previous archaeological investigation has been undertaken on the site. In December 2005, a watching brief was carried out by Museum of London Archaeological Service (MoLAS). Work on a new loading bay was monitored during the redevelopment of the underground car park (Site code RPL05). No archaeological remains were observed, and it was concluded that within its footprint the basement had already removed any archaeological remains previously present, down to natural deposits.

9 Within the 500m radius study area, 11 archaeological investigations have taken place, and it is considered that the archaeology of the area is reasonably well understood. Most of these investigations recorded either no archaeological features or post-medieval remains of low significance. Two investigations have recorded remains

[1] *The study area radius is determined by MOLAs understanding, experience, and what the GLHER and Greater London Archaeology Advisory Service (GLAAS) guidance states for search radius. 500m is the maximum search radius recommended for Inner London projects.*

from earlier periods. At 250 Euston Road, 80m east of the site, an excavation revealed a stone garderobe pit containing 16th-century deposits, together with yard surfaces and fragments of walls on the site of later-medieval Tottenhall Manor House (Tottenham Court). Some early-medieval pottery was also found.

10 Remains from the prehistoric period recorded in the 500m study area comprise one possible piece of Palaeolithic struck flint recovered at University College Hospital (80m south-east of the site) and two findspots of Neolithic polished stone axes. Any prehistoric remains would likely be restricted to isolated stone tools. The site was located away from known settlements and roads during the Roman and early medieval periods, and only isolated finds from these periods are recorded in the study area.

11 During the later-medieval period the area of the site was part of the Manor of Tottenhall: the manor house was located approximately 80m to the east of the site. Remains associated with the manor house were recorded during the excavation at 250 Euston Road.

12 Rocque's map of 1746 shows the site in fields just to the north of gardens with a number of small buildings at the junction of the present day Euston and Hampstead Roads. The area of the site was site was developed as terraced houses in the late 18th/early 19th century.

13 The current building was constructed in the 1960s, including the basement which occupies the entirety of the site.

Discussion for Scoping Out

14 The design of the Proposed Development is ongoing; however, it is anticipated to comprise the demolition of a majority of the existing structure on-site, with retention of key core elements and basement, and the construction of a new office-led, mixed-use development including laboratory enabled floorspace. The Proposed Development is likely to consist of a ground plus 36-storey building (the same height as the current building on site), an extension to the current basement as well as improved public amenity and landscaping.

15 The identification of physical impacts on buried heritage assets within the site takes into account any activity which would entail ground disturbance, for example site set up works at basement depth and the construction of deepened basements and new foundations.

16 The site is not in an APA. The following below-ground heritage potential has been identified for the site: Prehistoric remains – the Lynch Hill gravels are noted for occasional *in situ* Palaeolithic artefacts at depth within the fine-grained interglacial lenses, but their likely presence is very difficult to predict. There is a low to moderate potential for isolated stone tools within the gravels, of low heritage significance.

17 Intrusive activities associated with the Proposed Development, including the deepening of the existing basement, could have the potential to remove archaeological remains. However, the previous watching brief on the site recorded no archaeological features at the site. All archaeological remains within the site's footprint will have been removed by the construction of the existing basement to its formation level. In view of the above, likely significant effects relating to archaeology are not expected and archaeology can be scoped out of the ES. An Archaeological Desk-based Assessment including an indicative assessment of any impacts of the Proposed Development on archaeology has been prepared and forms **Annex F** of this EIA Scoping Report.

Mitigation Measures

18 In view of the low potential of the site to contain significant archaeological remains, further investigation is not anticipated to be required in relation to the determination of any future planning consent. Dependent on the exact scale and nature of any excavation and basement works, an archaeological watching brief way be required during these works to ensure that any previously unrecorded archaeological assets present, are not removed without record. If required, it is anticipated this would be secured via a suitably worded planning condition.

Conclusion

19 In view of the above, likely significant effects relating to archaeology are not expected and archaeology can be **scoped out** of the ES. An Archaeological Desk-based Assessment including an indicative assessment of any

impacts of the Proposed Development on archaeology has been prepared and forms **Annex F** of this EIA Scoping Report.

TOPIC SHEET

ECOLOGY AND BIODIVERSITY

Introduction

1 This topic sheet has been prepared by Greengage Environmental Ltd. and is based on the findings of a Preliminary Ecological Appraisal (PEA) (see **Annex G**) undertaken at the site in January 2023. This comprised a site walkover and a review of readily available biological data. Based on the findings of this report it is considered that there is no potential for significant effects relating to ecology and so this topic is **scoped out** of the EIA.

2 The purpose of the PEA is to establish the current ecological value of this site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions that could be required as a result of the Proposed Development.

3 The survey area extended to 0.93 hectares and comprised building and hardstanding, ruderal, scattered trees, introduced shrub and modified grassland.

4 The site survey undertaken by Greengage identified the site as having low potential to support nesting birds within the existing building and mature London Plane trees. The site has negligible potential for all other protected species.

5 The PEA sets out recommended mitigation measures to ensure no nesting birds are killed or injured during site clearance. These recommendations primarily consist of the careful timing of works or inspections before the demolition and construction works commence.

6 Ecological enhancement recommendations have been made to improve the ecological value of the site. These consider the site and surroundings and local and regional policy priorities. Enhancement recommendations include:

- A sensitive lighting strategy following best practice guidance produced by the Bat Conservation Trust (BCT) and Institute of Lighting Professionals;
- Intensive green roof planted with biodiverse and nectar-rich wildlife friendly herbaceous/shrub mix;
- Provision of extensive, substrate-based biodiverse roofs on all available flat roof spaces, which are compatible with PV arrays;
- SUDS features such as rain gardens and attenuation basins should be incorporated to provide ephemeral wetland habitats at ground level;
- Nectar-rich wildlife planting of known benefit to wildlife, at terrace and ground level within planters;
- Retention of existing trees as well as native street tree planting;
- Green walls using wire trellis and/or modular systems;
- Invertebrate habitat features including bee houses/log piles to be incorporated into the public realm areas and onto the extensive living roof;
- Bird boxes for swift, house sparrow, black redstart and peregrine falcon; and
- Bat boxes targeting crevices-dwelling species.

7 With the effective implementation of enhancement measures, no adverse impacts on biodiversity within or adjoining the site are predicted. A Biodiversity Net Gain (BNG) assessment will be undertaken for the Proposed Development, to be submitted as a standalone planning report, which will demonstrate any anticipated gains in the biodiversity value of the site.

8 All of the above key ecological mitigation, compensation and enhancement recommendations should be detailed within an Ecological Management Plan (EMP) for the site, which will be secured through a planning condition.

Baseline Conditions

9 The site visit to inform the PEA was undertaken on the 12th of January 2023 by Greengage Environmental, comprising a desk study, Phase 1 Habitat Survey, protected species assessment and ecological evaluation of the existing buildings and land on-site.

10 The site is not subject to any statutory or non-statutory nature conservation designations, and there are no statutory designated sites within a 1km radius. There is, however, one Local Nature Reserve (LNR) within 2km, Camley Street Nature Park, located 1.25km northeast of the site.

11 The nearest non-statutory designated site is Park Square Gardens and Regents Park, Sites of Importance for Nature Conservation (SINCs), 400m west of the site.

12 MAGIC[1] also identified the Lee Valley Special Protection Area (SPA) and Ramsar site 7.7km northeast of the site.

13 The site lies within the Impact Risk Zone for Sites of Special Scientific Interest (SSSI) of Hampstead Woods. However, the impact zone only refers to developments that relate to infrastructure such as airports, helipads and other aviation proposals, and livestock and poultry units. As the Proposed Development does not relate to either of these categories the fact that the site falls within the impact zone of a SSSI is not considered further.

14 Records from Greenspace Information of Greater London (GiGL) also identified 27 non-statutory Sites of Importance for Nature Conservation (SINCs) within 2km of the site boundary. SINCs are recognised by Local Planning Authorities (LPAs) as important wildlife sites.

15 Any potential impacts, such as pollution events, dust deposition and noise pollution/vibration either associated with the demolition, construction or operation of the Proposed Development will not affect any designated sites due to the distance and presence of geographical barriers. As the Proposed Development is non-residential, there are no foreseeable impacts associated with the operational phase. The designated sites are also already in an urban context and managed to facilitate recreation.

16 The site currently comprises building and hardstanding, ruderal, scattered trees (London Plane and common lime), introduced shrub and modified grassland. The site is in a highly urban area and the habitats on the site are of low ecological value.

17 The potential for the site to support protected and invasive species was also considered as part of the PEA and it was determined that the site had low potential to support nesting birds within the existing building and mature London Plane trees. The site has negligible potential for all other protected species.

Discussion for Scoping Out

18 There are no statutory or non-statutory designated sites or notable habitats within the likely zone of influence of site preparation, demolition, construction or operation; therefore, no significant impacts upon ecology and biodiversity beyond the site boundary are anticipated.

19 There are records of multiple common and widespread bird species within the surrounding 2km of the site.

20 The flat roof on level two and the rooftop have the potential for supporting common nesting birds including pigeons and gull species. Given the height of the building it is also possible for Peregrine Falcons to use the roof. There was no evidence of previous years' nests or evidence of use by peregrine falcons. However, this

[1] https://magic.defra.gov.uk/MagicMap.aspx

site visit was undertaken outside of the bird nesting season and the extreme weather may have resulted in any previous evidence being blown away.

21 The scattered trees on site have the potential to provide nesting opportunities for birds. However, the artificial lighting wrapped around the trees reduces the suitability. The London Plane trees had no evidence of previous years' nests. The lime trees are small in size, therefore offer limited space for nesting birds.

22 Continuous bird spikes overhang the podium on the second level. This will deter pigeons and gulls from roosting and nesting on level three.

23 Despite the overall limited availability on site, there was still evidence of bird scat, as well as missing panelling between levels 2-3, this provides access points where birds can nest.

24 Therefore, the site was identified as having low potential to support nesting birds within the existing building and mature London Plane trees.

25 The killing or injury of adult birds is highly unlikely as individuals can disperse from the demolition and construction zone. Therefore, the potential impacts of the demolition and construction works on birds includes the:

- Killing and injury of a birds' dependent young and/or eggs;
- Loss of potential nesting habitat; and
- Disturbance of nesting birds in surrounding areas.

26 The site has negligible potential to support all other notable and/or protected species due to the nature of the building, the lack of valuable habitats on site and is located in a highly urban setting with high levels of fragmentation and artificial lighting.

27 The current development proposals do not have any intention for tree removal or relocation as part of the Proposed Development. It is therefore considered unlikely that there will be any Arboricultural impacts as a result of the Proposed Development. In the event that any trees on or surrounding the site are to be impacted by the final design of the Proposed Development, these effects will be captured within an Arboricultural Impact Assessment (AIA) that will be submitted in support of the planning application.

Mitigation and Enhancement Measures

Mitigation Measures

28 In order to mitigate the risk of disturbing, injuring or killing nesting birds during the site clearance work, clearance and demolition works should take place outside of the nesting bird season (March–August inclusive). If this is not possible, clearance should only occur after a suitably qualified ecologist (SQE) has confirmed the absence of nesting birds, a maximum of 48hrs prior to site clearance.

29 Compensation for the loss of nesting bird opportunities should be included within the design, with bird boxes integrated into the fabric of the new buildings and native species including berry-bearing plants.

30 The evolving design of the Proposed Development include areas of new landscaping. This landscaping will provide compensatory areas of foraging, sheltering and nesting for a range of bird species, partially replacing the habitat lost. It has also been recommended to provide new nesting opportunities for priority bird species such as swift, house sparrow, black redstart and peregrine falcon, to be integrated within the buildings.

Enhancement Measures

31 Recommendations to enhance the biodiversity value of the site in accordance with national and local planning policies comprise: a sensitive lighting strategy, green roofs, green walls, SUDS, native tree and shrub planting, nectar-rich planting, invertebrate habitat features and provision of wildlife boxes including bird and bat boxes.

32 These ecological enhancement recommendations consider the site and surroundings and local and regional policy priorities. Enhancement recommendations include:

- A sensitive lighting strategy following best practice guidance produced by the Bat Conservation Trust (BCT) and Institute of Lighting Professionals;
- Intensive green roof planted with biodiverse and nectar-rich wildlife friendly herbaceous/shrub mix;
- Provision of extensive, substrate-based biodiverse roofs on all available flat roof spaces, which are compatible with PV arrays;
- SUDS features such as rain gardens and attenuation basins should be incorporated to provide ephemeral wetland habitats at ground level;
- Nectar-rich wildlife planting of known benefit to wildlife, at terrace and ground level within planters;
- Retention of existing trees as well as native street tree planting;
- Green walls using wire trellis and/or modular systems;
- Invertebrate habitat features including bee houses/log piles to be incorporated into the public realm areas and onto the extensive living roof;
- Bird boxes for swift, house sparrow, black redstart and peregrine falcon; and
- Bat boxes targeting crevices-dwelling species.

Conclusion

33 Data received from the desktop study and the PEA site walkover on 12th January 2023 have confirmed that the site has low potential to support nesting birds and negligible potential to support all other notable and/or protected species.

34 Mitigation actions have accordingly been recommended and included within the proposals to ensure any residual impacts are fully avoided or compensated for.

35 If the recommended mitigation, compensation and enhancement measures are implemented within the scheme, the overall development is predicted to have a beneficial impact on local biodiversity.

36 Based on the above, it is proposed to **scope out** an assessment of the Proposed Development's effects on ecology and biodiversity.

TRIUM

TOPIC SHEET

GEOENVIRONMENTAL (GROUND CONDITIONS, GROUNDWATER AND LAND TAKE AND SOILS)

Introduction

1 It is considered that significant effects relating to ground conditions are unlikely and as such, this topic is **scoped out** of the EIA. The following section provides a summary of the ground conditions, sensitive geoenvironmental receptors and the potential for land contamination at the site. The following review and summary have been provided by Arup.

Baseline Conditions

2 The site is located at 286 Euston Rd, London NW1 3DP (approximate National Grid Reference TQ 29192 82354) in the London Borough of Camden (LBC). It comprises an area of approximately 0.93 hectares occupied by Euston Tower and a small area of surrounding public realm. The area surrounding the site includes a mix of uses which are primarily residential and commercial with several hospital/university buildings.

3 Euston Tower is a 36-storey office building with retail use on the lower two floors and a single level basement. The basement extends beyond the building footprint to the west and north and is understood to provide a shared space with other buildings which remains in use.

4 The ground level across the site footprint is relatively flat at approximately +28.0m Above Ordnance Datum (AOD).

Site History

5 The history of the site and immediate surrounding area is summarised below:

- Pre-1746: the site was an undeveloped greenfield site;
- 1813 to 1875: the site had been developed with the majority occupied by terraced housing. Henry Street (changed to Seaton Street by 1896 and Seaton Place by 1953) to the north and Eden Street to the south ran east to west. The surrounding area remained largely residential;
- 1889 to 1957: the site became shops in the north and east and factories and warehouses (later a sheet metalworks) in the south and west. The surrounding area included various factories, a brass foundry, garage, laundry, printing works and an oil and lead works. By 1927 Warren Street station had been built further south beyond Euston Road;
- 1963: many of the buildings in the south and east of the site were vacant and areas to the south of the site had been cleared. The southern part of the site was subsequently cleared later the same year;
- 1966 to early 1970s: Construction of an underpass to the south of the site and Euston Centre on and around the site began in 1966. This included construction of Block A (Euston Tower) onsite which was completed in 1971. Euston Centre Block F to the west was also built between the late 1960s and early 1970s; and
- 1972 onwards: Construction of further buildings to the north took place. These were demolished between 2010 and 2012 (NEQ 10-20 Brock Street). Euston Centre Block F (offsite) was demolished in the 1990s. Euston Tower remains unchanged onsite.

Ground Conditions

6 The geology of the site, based on existing borehole records, published geological maps and a recent geotechnical foundation investigation (in 2022), is summarised below:

- The surface geology at the site consists of Langley Silt over River Terrace Deposits (RTD). The Langley Silt is an unproductive stratum while the RTD are designated a secondary A aquifer;
- Beneath this the site is underlain by a downward sequence of unproductive London Clay over Lambeth Group, Thanet Formation and Chalk. The Thanet Formation is designated as a secondary A aquifer while the Chalk is designated a principal aquifer within the wider London area. Boreholes near the site indicate a thickness of approximately 20m of London Clay, which will provide protection to the Thanet Formation and Chalk from downward migration of contamination; and
- The geotechnical foundation investigation comprised three 5m deep shafts and mined headings beneath the pile cap/basement slab. It confirmed the shallow geology and that the existing building is founded within the London Clay. Localised diesel contamination was identified beneath the basement within the London Clay in one of the three headings. The impacted area appeared to be highly localised and the majority of material was removed as part of the investigation works. Limited soil sampling was undertaken to identify the contamination, which confirmed that it was primarily diesel but the age and source of the contamination is unclear. It was encountered close to the existing diesel tank room but no obvious migration pathway through the substantial concrete slab was apparent.

Environmental Site Sensitivity

7 There are no active groundwater abstraction licences or discharge consents within 500m of the site. The nearest surface water feature is the boating lake in Regent's Park, which is over 800m from the site.

8 The site is not located in, and is not within 250m of, a sensitive area such as Areas of Outstanding Natural Beauty, Environmentally Sensitive Areas, Local Nature Reserves, Nitrate Sensitive Areas, Ramsar sites, sites of Special Scientific Interest, Special Areas of Conservation and Special Protection Areas or Green Belt.

Potential Contamination Sources

9 Onsite potential sources of contamination comprise:

- Made Ground related to previous phases of development. This will be limited by the existing basement and foundations which will have removed it within the building footprint;
- Historical light industrial uses including a cabinet factory, drug warehouse, laboratories and a sheet metalworks. The potential for contamination linked to these past uses to remain is limited by excavations for construction of the site-wide basement; and
- Current uses including chemical storage, diesel tanks and generators have the potential to release contamination to the subsurface. These are expected to be localised and limited to specific activities within the existing building. The substantial basement structure would be expected to contain all but the most extensive spills or releases.

10 Offsite potential sources of contamination comprise:

- Made Ground related to previous phases of development; and
- Nearby historical uses including a brass foundry, garage, laundry, printing works and an oil and lead works.

Development Context

11 The Proposed Development involves partial demolition of the building leaving the core and construction of a new structure over the original footprint extending to cover a larger floorplate. The larger floorplate is expected to need new foundations. The building will have a single level basement which will occupy most of the site area and include plant rooms, bicycle parking, showers and locker rooms. The ground level will primarily be for retail use with upper levels primarily comprising office space, event space and a canteen.

12 Human health and environmental receptors associated with the site and the Proposed Development include: groundworkers, site visitors and neighbours during construction, future site users (employees and maintenance workers) during operation, controlled waters (RTD) secondary A aquifer, Chalk principal aquifer) and building materials.

Conclusions

13 Baseline information indicates that site has a generally low potential for significant or widespread contamination considering its previous and current uses. A summary of potential contaminant linkages is presented in Table 1.

Table 1 Summary of Identified Potential Contaminant Linkages

Potential Contaminant linkages	Risk characterisation (without mitigation)
Risk of harm to human health during construction	Low to moderate
Risk of harm to human health during operation	Low
Risk of pollution to groundwater in the RTD secondary A aquifer	Moderate
Risk of pollution to groundwater in the Chalk principal aquifer	No contaminant linkage identified
Risk of pollution to surface water courses	No contaminant linkage identified
Risk of harm to building materials and services	Low to moderate
Risk of harm to new planting	No contaminant linkage identified

Potential Effects

14 There is the potential for ground contamination at the site related to historical uses but this is severely limited by the existing basement and foundations which have removed the Made Ground within the building footprint.

15 Potential effects related to ground conditions and contamination at the site, if contamination is present, could include:

- Work with contaminated soil and groundwater during ground works;
- Generation of potentially contaminated dusts on the site and at boundaries;
- Creation of preferential contamination migration pathways;
- Damage to building materials, services or new planting due to the presence of contamination; and
- Discovery of Unexploded Ordnance (UXO).

Discussion for Scoping Out

16 A Contamination Preliminary Risk Assessment (PRA) will be prepared to support the Planning Application. It will consider the history of the site based on historic mapping and other readily available environmental information, the environmental setting of the Proposed Development and proposed use of the site. The report will include a conceptual site model and preliminary risk assessment and provide recommendations for ground investigation. The report will also describe the results of a site visit undertaken to review the current use of the site as far as practical and identify evidence of potential sources of contamination sources onsite.

17 Data to inform the PRA will come from:

- A commercial environmental search report;
- Historical mapping, aerial photography and detailed fire insurance town plans;
- A site reconnaissance visit; and
- Review of other readily available records in the public domain which relate to the site.

18 Although the area has a history of potentially contaminative land uses, construction of the existing building and basement will have the Made Ground within the footprint of the building which limits the potential sources of historical contamination.

19 While some evidence of diesel contamination was identified beneath site, this was localised and constrained by the London Clay. The impacted material was removed as far as practicable during the foundation investigation and further ground investigation will be undertaken to characterise ground conditions at the site.

20 The potential effects can be mitigated by measures during demolition and construction, even if residual or other areas of contamination are present, because sufficient ground investigation will be undertaken to provide information on ground conditions to inform construction works. Specific contamination measures would only be required if soils are found to be extensively contaminated or if they contain asbestos. This would be established by pre-construction ground investigation. Specific gas protection measures would only be required if risk assessment of ground investigation results confirmed they were required.

21 The Proposed Development is not considered to give rise to significant effects from ground contamination. A discussion with respect to each sensitive receptor is provided below.

Construction Effects

Construction Workers and Site Neighbours

22 Demolition and construction works, including piling, excavation, spoil handling and disposal, will be undertaken in accordance with an approved Construction Environmental Management Plan (CEMP), to prevent pollution of ground and surface waters and to protect human health. A watching brief for any contamination encountered during construction will form part of the CEMP.

23 Regulations will be adhered to, and any potentially enhanced risks associated with contamination are expected to be managed by the undertaking of phased assessment and development of a remediation strategy under planning. This will ensure that exposure to contamination is minimised to an acceptable level which will prevent any significant adverse demolition and construction effects occurring.

24 Where proposed activities are likely to generate excess soil arisings as part of the demolition and construction works, the design will be informed by the requirements of the CL:AIRE Definition of Waste: Code of Practice[1]. While these considerations are not directly required to meet planning or undertake compliant EIA, early consideration of how excess soils can be managed is likely to lead to future programme and cost benefits at construction stage.

Groundwater

25 It is possible that contamination could be present in the RTD secondary A aquifer, although this is expected to be highly truncated by the existing onsite basement and in the local area from nearby buildings with basements. It will be investigated and assessed through ground investigation and tiered risk assessment. In addition, the Proposed Development includes a single storey basement across most of the site, providing a barrier to contamination migrating onto site within groundwater from offsite areas.

26 The principal Chalk aquifer lies at depth beneath the site; however, this is protected by a thick layer of London Clay (aquitard) which is classified as unproductive stratum. Piled foundations are anticipated to terminate in the London Clay and therefore no significant effects will be observed to the principal aquifer at depth. Should deep piled foundations be proposed which penetrate the London Clay, a Foundation Works Risk Assessment (FWRA) will be undertaken pursuant to a planning condition to assess potential risks to the Chalk principal aquifer.

Surface Water

27 The nearest surface water feature is over 800m from the site. This is a considerable distance and in the absence of a potential linkage, surface water is not considered as a plausible receptor.

[1] *CL:AIRE (2011), The Definition of Waste: Development Industry Code of Practice, version 2. CL:AIRE, London, March 2011. Available at: https://www.claire.co.uk/projects-and-initiatives/dow-cop/28-framework-and-guidance/111-dow-cop-main-document*

Building Materials

28 Concrete and building materials to be used in the ground will be appropriately specified based on the ground conditions following ground investigation considering the site-specific soil aggressivity. This will mitigate any effect on building materials from ground conditions and contamination.

Ecological Designations

29 There are no designated sensitive land uses within 250m of the site such as sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Areas of Outstanding Natural Beauty (AONB), Special Areas of Conservation (SAC), Special Protection Areas (SPA), RAMSAR sites or Local Nature Reserves (LNR). Therefore, there is no potential for likely significant effects on such receptors.

Geological Resources

30 There are no designated geological conservation resources at or near the site. On this basis, there is no potential for likely significant effects on geological conservation resources.

Operational Effects

Future Site Users

31 On completion of the Proposed Development, it is considered that there would not be the potential for any likely significant adverse operational effects on future users as a result of the use of the Proposed Development. Potentially contaminated Made Ground soils are not present due to the excavation of the existing basement. Any residual contamination beneath the existing basement may be removed during basement works as part of the Proposed Development or would be investigated and assessed through ground investigation and tiered risk assessment.

32 It is expected that areas of public realm are likely to be hard surfaced. If soft landscaping is included in the scheme, it will be appropriately designed and include provision for a layer of certified clean landscaping soils above any residual Made Ground. This reduces the significance of direct exposure pathways. Overall, the nature of the Proposed Development and its use does not present a significant contamination risk to human receptors.

Conclusion

33 The Proposed Development is not considered to give rise to significant effects from ground contamination. It is recognised that the proposed process of tiered assessment and the development of remediation/risk management strategies required to address planning conditions will be sufficient to prevent significant effects from ground contamination. On this basis, further consideration of Geoenvironmental aspects has been **scoped out** of the EIA.

TOPIC SHEET

HUMAN HEALTH

Introduction

1 As required under the EIA Regulations[1], the potential for significant effects on human health have been considered within this topic sheet for the EIA Scoping Report.

2 A number of key guidance documents relating to the consideration of health as part of EIA have been published since the inclusion of this topic in the EIA Regulations in 2017. These papers indicate that consideration of human health as a topic should be proportionate and, in most cases, can be **scoped out** of the EIA:

- Public Health England (July 2017)[2]: 'Scoping should usually result in most potential health issues (i.e. most determinants of health) being legitimately scoped-out of an EIA.';
- Institute of Environmental Management and Assessment (IEMA) (May 2017)[3]: 'The scoping of population and human health issues into EIA should focus on whether the potential impacts are likely to be significant.';
- International Association for Impact Assessment (IAIA) (December 2020)[4]: 'Scoping health should be proportionate. Health effects that are not likely to significantly affect population health should be 'scoped-out'.';
- IEMA (November 2022)[5]: 'Determining significance for human health.'; and
- IEMA (November 2022)[6]: 'Effective scoping of human health.'.

3 The IEMA (November 2022) 'Effective scoping of human health' guidelines stipulate that EIA scoping should be proportionate, meaning that it should remain focused on the likely and potentially significant effects on population health due to the project (noting this guidance was produced principally to help guide the assessment of Nationally Significant Infrastructure Projects), and, where all relevant wider determinants of health are scoped out, health as an EIA technical topic can be scoped out.

4 This guidance has been used to inform this topic sheet with the aim of 'scoping out' human health as an ES chapter, through a discussion of the identified wider determinants of health, using available scheme information, background knowledge and baseline data. A review of those health determinants relevant to the site location and the Proposed Development has been undertaken by Trium, and are set

[1] *The Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017 (as amended in 2018 and 2020).*
[2] *Public Health England (July 2017), Health and Environmental Impact Assessment: A Briefing for Public Health Teams in England*
[3] *IEMA (May 2017), Health in Environmental Impact Assessment – A Primer for a Proportionate Approach.*
[4] *IAIA (December 2020), Human health: Ensuring a high level of protection.*
[5] *IEMA (November 2022), Determining Significance for Human Health.*
[6] *IEMA (November 2022), Effective Scoping of Human Health.*

out in Table 1 along with a response as to how these relevant determinants are considered unlikely to be significantly affected by the Proposed Development.

5 Baseline data from Public Health England (PHE), namely from the PHE 'Fingertips' portal[7], has been used to obtain relevant data on health determinants for the London Borough of Camden (LBC) and, where possible, a local (ward) level.

6 Given the nature of the Proposed Development i.e., a commercial development (including life science uses) on an existing area of commercial land, a number of the health determinants detailed within the IEMA 'Effective scoping of human health' guidance are not applicable. Receptors introduced by the Proposed Development, i.e. workers, will require limited (if any) access to social infrastructure and would also not require consideration with regards to housing-related determinants (further justification on this point is provided in the socio-economics topic sheet of this EIA Scoping Report). As such, these determinants are not considered for the site and further discussion is not provided within Table 1.

Table 1 PHE Determinants of Health Relevant to the Proposed Development

Relevant Determinants of Health	Response in the Proposed Development/ Planning Application/ EIA
Risk Taking Behaviour	A Construction Method Statement (CMS) would be prepared by the Principal Contractor, and it would be the site manager's responsibility to ensure that all construction staff working on the site are sufficiently trained to reduce risks of accidents, injuries or unprofessional risk taking behaviour occurring during the demolition and construction works. In a similar vein, a Construction Environmental Management Plan (CEMP) will be prepared including measures to reduce the potential for environmental impacts to occur during the demolition and construction works. This will detail measures to ensure the safety of staff working on site, but also include measures for them to follow to reduce the risk to offsite human receptors. By ensuring that the demolition and construction workers follow the methods and measures contained within these documents, the potential for risk taking behaviour would be minimised and significant effects on this determinant of health are considered unlikely. In terms of operational workers, suitable health and safety guidance would be set out within an employee handbook (or similar) to reduce the risk of accidents taking place within the workplace. All staff on site would be suitably trained to ensure they can complete their jobs without any unnecessary risk. First aid trained staff would also be located on site for each shift to respond in case accidents do occur. With these measures in place, the potential for risk taking behaviours is considered to be suitably reduced to minimise the potential impacts to human health. Significant effects are therefore considered unlikely in relation to risk taking behaviour.
Transport Modes, Access and Connections	The Proposed Development will incorporate a number of measures to encourage the active travel of staff to and from their workplace. These measures will include: • A Travel Plan setting out measures to encourage staff and visitors to use sustainable modes of transport; • The provision of cycle parking in line with London Plan standards for a commercial development, with changing and shower facilities also provided; • Potential developer contributions towards public transport; • Provision of new pedestrian/cycle infrastructure as part of the Proposed Development; and • Provision of a Construction Logistics Plan (CLP)/CEMP. In addition, the predicted increases in construction traffic flows associated with the proposals are considerably below the Institute for Environmental Management and Assessment (IEMA) thresholds and accordingly is considered to warrant no further assessment. The Proposed Development is also located in proximity to Warren Street and Euston Square London Underground stations, which will help to encourage travel to site via public transport, instead of the use of private vehicles. Consequently, it is considered that the Proposed Development will not have a significant effect on transport modes, access and connections.

[7] *Public Health England (2022), Fingertips local authority health profiles – Newham. https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/1938132701/pat/6/par/E12000007/ati/102/are/E09000025/yrr/3/cid/4/tbm/1 (Accessed 300123)*

Relevant Determinants of Health		Response in the Proposed Development/ Planning Application/ EIA
Community Safety		As the site has historically been limited to commercial uses and the Proposed Development comprises a commercial and life sciences development, it is considered that there will be no increase in negative impacts to Community Safety. Furthermore, due to the nature of life science developments, they require high levels of security to ensure there is no disruption to their operation and restricted materials are secure. This will help keep crime levels low on the site and may also help to improve security within the area surrounding the site. Therefore, the Proposed Development will not have a significant effect on community safety.
Community Identity, Culture, Resilience and Influence		As the site has historically been limited to commercial uses and the Proposed Development aligns with this with parts of the building (i.e. the core and basement) to be retained as part of the new proposals, , it is considered that there will be no change to Community Identity, Culture, Resilience and Influence. Commercial developments which include life science uses require high tech utilities, internet and other infrastructure in order to operate, which will result in enhanced infrastructure being introduced to the local area. There are also links with life sciences and the clustering effect with other businesses, attracting new companies and startup firms to the area, quite often as a result of the links with high quality infrastructure. This would help to support the growth of the local area and have a positive effect to the community and resilience of the local area. Therefore, the Proposed Development will not have a significant effect on community identity, culture, resilience and influence, albeit will result in positive effects to health.
Social Participation, Interaction and Support		As the site has historically been limited to commercial uses and the Proposed Development aligns with this with parts of the building (i.e. the core and basement) to be retained as part of the new proposals, it is considered that there will be no impacts to Social Participation, Interaction and Support, therefore, the Proposed Development will not have a significant effect on this determinant of health.
Economic Environment (see Socio-economics topic sheet for further information).	Education and Training	Consideration for the impacts of the Proposed Development on Education and Training will be included within the planning application. It is likely that the Proposed Development will provide opportunities for training and development, both during the demolition and construction works and once operational. It is therefore likely there would be positive impact to health as a result of this, by facilitating the provision of jobs and the potential upskilling of the current and future work force. Camden has a higher than average percentage of people with formal qualifications including those with NVQ4 or above (66% in LBC compared to 59% across London more generally) and therefore, while opportunities to improve training through the Proposed Development would be beneficial, it is unlikely that these effects would be significant.
	Employment and Income	The Proposed Development will create jobs on site, both during the demolition and construction works and once the Proposed Development is operational. Levels of unemployment in Camden are broadly consistent with those across London (4.6%), with a claimant count percentage of 4.3% in December 2022; however, this is higher than across Great Britain more generally (3.6%). The provision of new employment opportunities can therefore have a positive impact on the local area. The employment opportunities are also likely to be highly qualitied and well-paid jobs. Significant effects to the employment and income determinant of health are, however, not considered likely.
Bio-physical Environment	Climate Change Mitigation and Adaptation	Commercial and life science developments are typically highly energy intensive due to their nature and so, as an industry, can be the cause of high greenhouse gas emissions through the required energy generation to support their use (albeit this is linked to the energy mix of the national grid, rather than specifically as a result of the scheme). However, the Proposed Development is likely to be powered largely by renewable energy sources and therefore would have limited associated greenhouse gas emissions. As a result of this, the Proposed Development is unlikely to have a significant effect to health as a result of its impact on climate change.
	Air Quality	It is expected that there would be limited traffic associated with the Proposed Development, both during the demolition and construction works and once the Proposed Development is operational. During construction, the impacts from dust would be managed as far as possible through measures set out within a CEMP, which would help to reduce health impacts on nearby residential receptors. Once operational, there are likely to be emissions from the testing of emergency diesel generators; however, these would be located at a suitable distance from sensitive receptors and would be tested at times to avoid peaks in air pollution (i.e. during peak traffic periods). With these controls it is considered unlikely that there would be significant effects to air quality to impact on health.
	Water Quality or Availability	The Proposed Development would not impact on water quality as it will not cause the release of pollutants to the water network. Measures would be in place (and controlled through a CEMP) during demolition and construction to ensure the risk of pollutant spillage is minimised as far as possible.

Relevant Determinants of Health		Response in the Proposed Development/ Planning Application/ EIA
		In terms of water availability, water efficient fittings would be installed to ensure water usage on site is reduced as far as possible. Given the nature of the Proposed Development, high levels of water usage are not expected. Therefore, effects to health from water quality and availability in relation to health are considered unlikely.
	Flood Risk	The Proposed Development is located within Flood Risk Zone 1, and is considered to be at low of risk of flooding from all sources. Suitable drainage systems (including SuDS) would be implemented once the site is operational to manage the flow of water off site to meet necessary standards. Due to the nature of the Proposed Development, it cannot be located within a location where there is a large flood risk and so the risk of flooding on the site is considered minimal. Therefore, effects to health from flood risk are considered unlikely.
	Land Quality	Historic ground investigations at the site have concluded that the site generally has a low potential of significant or widespread contamination. Any residual risks that need to be addressed during the demolition and construction works will be inherently mitigated as part of the scheme design and/or good practice. Therefore, the risk of impact to health from contamination is considered to be low.
	Noise and Vibration	Noise and vibration will be managed during the demolition and construction works through the use of good practice mitigation measures to reduce levels, as far as practicably possible, to be secured through a CEMP. This will help to reduce the potential for noise impacts to nearby sensitive receptors, ensuring there is limited potential for health impacts. Once operational, limited noise impacts are expected from the Proposed Development to nearby sensitive receptors, with regards to health. As with air quality, emergency generators will need regular testing which could create a noise source; however, these will either be located away from sensitive receptors and/or subject to suitable noise bunding and mitigation should the need for this be identified. Significant health impacts from noise are therefore considered unlikely. Vibration effects are also considered unlikely once the Proposed Development is operational. Due to the nature of the Proposed Development, noise is unlikely to impact on the users of the site once operational.
	Built Environment	The site is currently occupied by the unlisted Euston Tower building, which is approximately 37 storeys in height. The townscape to the north, east and west of the site, north of Euston Road is varied but largely post-war in character and includes the tall modern commercial quarter of Regent's Place, the post-war Regent's Park Estate and the ongoing redevelopment of Euston Station. To the south of Euston Road, the townscape is finer grained and more historic in character. The nearby residential land uses will therefore be used to seeing industrial and commercial buildings within their locality and so the Proposed Development would be in-keeping of this. Additionally, the Proposed Development will be well designed, and the site will be subject to landscaping and biodiversity enhancements, which would be positive for the local area. Based on this, the proposed changes to the built environment are considered unlikely to have significant effects to the health of the population in relation to the built environment.
	Wider Societal Infrastructure and Resources	The site has been identified as a preferred location for the Proposed Development due to the existing commercial nature of the area, along with the key public transport linkages that allow access to the site. As noted, these life science developments require high quality communication and IT infrastructure and also encourage development by attracting businesses into the local area (through a clustering effect), which can help support the wider growth aims within the borough and region. This can support the creation of jobs and provide income, which is a key health determinant. The Proposed Development would therefore have a positive impact on wider societal infrastructure and resources; however, not to a significant nature in EIA terms.

Conclusion

7 The relevant determinants of health have been considered in the above table and no significant effects on population health are anticipated as a result of the construction works and once the Proposed Development is operational. It is therefore considered proportionate for a further assessment of the Proposed Development on Human Health to be **scoped out** of the EIA.

TOPIC SHEET

Light Spill

Introduction

1 It is considered that there is unlikely to be significant effects relating to light spill to surrounding residential buildings as a result of the Proposed Development. This is primarily due to the scale of the existing Euston Tower building, which already produces a degree of light spill.

2 This topic is therefore **scoped out** of the EIA.

Baseline Conditions

3 The existing building will cause a degree of light spill to surrounding residential properties, including

- 20 Brock Street, Regent Square;
- 175 Drummond Street;
- 40-60 Hampsted Road;
- 295 Euston Road; and
- Warren Court.

4 These properties are identified in green in Figure 4 below.

5 Any effects of the Proposed Development are likely to be mitigated through considerate design (such as intelligent building features/lighting schemes). So as not to produce unacceptable levels of light spill, consideration will also be given to the effects of any external lighting.

6 However, in the event that an assessment is required, analysis of the likely effects of light spill will be made in areas where residential accommodation is in close proximity to the Proposed Development. If required, in order to demonstrate the extent of any effects, a detailed technical assessment will be undertaken once the proposed lighting system has been determined.

Figure 1 Sensitive Receptors for Light Spill

Discussion for Scoping Out

7 The existing building will cause a degree of light spill and any effects of the Proposed Development are likely to be mitigated through considerate design (such as intelligent building features/lighting schemes), so as not to produce unacceptable levels of light spill.

8 Notwithstanding this, when preparing the Proposed Development's Lighting Strategy (which may be conditioned as part of any future planning consent), consideration would be given to measures to maximise the effectiveness of lighting on-site whilst avoiding adverse impacts.

9 The assessment of light spillage effects arising from the Proposed Development has therefore been **scoped out** of the EIA.

TOPIC SHEET

PROJECT VULNERABILITY, MAJOR ACCIDENTS AND DISASTERS

Introduction

1 It is considered that significant effects relating to project vulnerability (major accidents and disasters) are unlikely as a result of the Proposed Development and, as such, this topic is **scoped out** of the EIA. Justification as to why significant effects are not considered likely is set out within this topic sheet.

2 With reference to Regulation 4(4) and Schedule 4 of the EIA Regulations, this topic sheet considers whether there are likely to be any *'significant effects arising from the vulnerability of the proposed development to major accidents or disasters'* on the environment or the project.

3 Paragraph 8 of Schedule 4 of the EIA Regulations 2017 (as amended) provides a description of the information to be provided in the ES in relation to these events. In line with this description, this information is of key importance for the assessment of major industrial and/or infrastructure schemes which could pose significant risks to society and the environment in the event of a major accident or a natural disaster which would impede its normal function (e.g. nuclear/petrochemical installations, major transport infrastructure such as tunnels, bridges or airports etc.). While the Proposed Development does not fall into these scheme categories, the project's vulnerability to a major accident or a natural disaster has nevertheless been taken into consideration in order to ascertain the potential risks to future site users and surrounding human and environmental receptors.

4 Guidance available from Institute for Environmental Management and Assessment (IEMA) (Major Accidents and Disasters in EIA: A Primer[1]) provides the definitions of major accidents and disasters as follows:

- Disaster – "*may be a natural hazard (e.g., earthquake) or a man-made/external hazard (e.g., act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident*"; and
- Major accident as "*events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g., train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events*".

5 As noted in the guidance, a development should first be screened to determine its potential to result in likely significant effects in the event of a major accident or natural disaster. The following questions are posed to help determine a view on this:

- "*Is the development a source of hazard itself that could result in a major accident and/or disaster occurring?*
- *Does the development interact with any sources of external hazards that may make it vulnerable to a major accident and/or disaster?*
- *If an external major accident and/or disaster occurred, would the existence of the development increase the risk of a significant effect to an environmental receptor occurring?"*

[1] *IEMA, 2020, Major Accidents and Disasters in EIA: A Primer.*

6 In line with the above questions, given the intended scale and uses, it is considered that the Proposed Development would be unlikely to result in significant effects from most major accidents and natural disasters. The Proposed Development is not a source of hazard itself nor does it interact with any sources of external hazards that make it vulnerable to a major accident or disaster. As the Proposed Development has the potential to include laboratory enabled space, it is possible that hazardous substances will be present within these spaces. It is not yet known what the end use of the laboratory enabled space will be, however based on experience of schemes of a similar nature across London it is assumed that these spaces will comprise Category 2 laboratories[2]. Consequently, the relevant legislative and regulatory controls and best practice guidance applicable to the transport, storage and use of hazardous chemicals, gases and materials associated with the operation of Category 2 laboratories has been provided within this topic sheet. It is not expected that the end use of the Proposed Development would exceed the requirements of a Category 2 Laboratory, so the below legislation and controls are provided to cover the worst-case scenario. Compliance and adherence to the below would result in significant effects relating to major accidents and disasters as a result of the laboratory enabled space within the Proposed Development being very unlikely.

Legislative Controls

7 The Control of Substances Hazardous to Health Regulations (COSHH) 2002[3] sets out the relevant training and information required to work with such substances, control and mitigation measures and fail safes regarding the use and storage of hazardous materials for all laboratories in the United Kingdom and are governed by the Health and Safety Executive (HSE) and Advisory Committee on Dangerous Pathogens (ACDP).

8 As set out above, for the purpose of this topic sheet, it is assumed that the wet laboratories within the Proposed Development are intended as Category 2 laboratories and have been designed to meet Containment Level 2 requirements (also referred to as 'Category 2 labs'), in accordance with COSHH 2002. The ACDP guidance 'Management and operation of microbiological containment laboratories'[4] details the minimum containment measures required at Containment Level 2 labs and this will be followed in conjunction with the control measures specified in Schedule 3, of the COSHH Regulations 2002.

9 In addition to this guidance and subject to the end use of the laboratories the buildings may also be subject to The Genetically Modified Organisms (Contained Use) Regulations 2014[5] and Guidance For Licence Holders On The Containment And Control Of Specified Animal Pathogens 2015[6]. These documents provide minimum requirements relating to the design of the laboratories, the transport, storage, handling and use of associated chemicals and hazardous materials.

10 The use and storage of the anticipated hazardous substances will need to comply with all relevant health and safety legislation and standards such as guidance in the HSE and the British Compressed Gases Association (BCGA) and BCGA Code of Practice (CP) 30[7] (which provides further guidance on storage, maintenance, handling, filling and use). If regulated substances were to be present at sufficient levels (which is not considered at all likely given the volume and controlled quantities within Schedule 1 Hazardous substances and controlled quantities of the Planning (Hazardous Substances) Regulations 2015[8]), then additional consents may be required pursuant to the Planning (Hazardous Substances) Regulations 2015 or Control of Major Accident Hazards Regulations 1999[9].

Containment Level 2 ('Category 2') Laboratories

11 It is acknowledged that it is possible that chemicals or other regulated substances may be present on-site within the wet labs proposed as part of the Proposed Development. Based on other laboratories of this nature, these

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[2] *These laboratories are typically used for work with medium risk biological agents and hazards.*
[3] *His Majesty's Stationary Office (2002) The Control of Substances Hazardous to Health Regulations 2002*
[4] *ADCP (2018, amended 2019) Management and Operation of Microbiological Containment Laboratories*
[5] *His Majesty's Stationary Office (2014) The Genetically Modified Organisms (Contained Use) Regulations 2014*
[6] *Health and Safety Executive (2015) Guidance for Licence Holders on the Containment and Control of Specified Animal Pathogens*
[7] *BCGA (2019) CP30 The safe Use of Liquid Nitrogen Dewars. Revision 3: 2019*
[8] *His Majesty's Stationary Office (2015) The Planning (Hazardous Substances) Regulations 2015*
[9] *His Majesty's Stationary Office (1999) The Control of Major Accidents Hazards Regulations 1999*

substances may include Nitrogen, Carbon Dioxide, Compressed Air and Oxygen. It should be noted that Nitrogen, Carbon Dioxide and Compressed Air, which are typically used in Category 1 laboratories, are not listed substances under The Planning (Hazardous Substances) Regulations 2015.

12 Contaminant Level 2 laboratories are likely to use small volumes of inflammable liquids (quantities are likely to be a few litres), and similarly small volumes of non-flammable gases are often associated with this level of laboratory. Inflammable gases are not usually associated with Containment Level 2 laboratories and are unlikely to be present on site.

Proposed Management Measures

13 Low volumes of chemicals are likely to be present on-site and the risks associated with these will be mitigated through building management and operation protocols. Namely this involves the storage of solvents and gases in external storage cages/drawers designed for 30 to 60 minute fire resistance (as required), these storage cages/drawers would be located in protected loading/servicing courtyards and would not be visible or accessible to members of the public.

14 Laboratories would use a strict decant policy with trained technicians accessing the stored chemicals via restricted ventilated lift access (controlled key access and sign in and out procedure) and decanting the required quantities of chemicals for use in the labs. Any decanted chemicals requiring storage in the laboratories would be stored in fireproof cabinets which would be actively ventilated in case of leakage. Laboratories and storage areas would also be fitted with gas alarms (operated 24/7) linked to high-speed active exhaust systems; in turn these would be fitted (as relevant) with filters to negate the risk of the exhaustion of chemicals. Tenants and the building operators would keep chemical inventories which would be shared with the London Fire Brigade.

15 In addition, any laboratory areas where chemicals and potentially hazardous substances are to be used, would be fitted with an appropriate air extraction system designed in accordance with all relevant regulations and guidance documents, the appropriate extraction and filter details can only be determined once the details of the occupants and their associated chemicals and chemical reactions are determined and hence this would be undertaken at the detailed design stage.

16 The use and storage of chemicals and regulated substances will therefore be appropriately managed through the established regulatory framework and the control measures implemented at the local and/or national government level.

17 The end-users of the buildings are not yet known, and the laboratories will be subject to further detailed design once these are confirmed. Once the building occupants are confirmed and the associated final use of the laboratories determined, if regulated substances will be present on-site, then the Proposed Development will comply with all regulations and guidance relating to the storage and use of such substances set out above.

Assessment of Effects

18 The Proposed Development intends to provide a mixed-use development, proving space for office, commercial, retail and laboratory enabled space (see the 'Description of Development' section in the main Scoping Report), and associated landscaping, public realm and pedestrian and cyclist connections. As such, considering the above definitions and considerations an assessment of the Proposed Development's vulnerability to major accidents and natural disasters has been screened out of further assessment in the EIA.

19 The guidance further states that:

"*Not all potential events will fall into the scope of a major accidents and/or disasters assessment. The level of risk therefore needs to be defined to inform what types of events are within the scope of the major accidents and/or disasters assessment*".

20 The London Resilience Partnership has developed the London Risk Register[10], which lists a range of natural hazards and man-made accidents/incidents and assesses the risks they pose to the London area based on their

[10] *London Resilience Partnership February 2022, London Risk Register. Accessible at https://www.london.gov.uk/what-we-do/fire-and-resilience/london-resilience-partnership/london-risk-register*

potential impact and likelihood. As well as assessing the risk of these events, the London Risk Register also provides an outline of the control measures in place to avoid, manage and respond to them. These measures range from specific laws and regulations intended to avoid or manage the potential causes of major accidents and natural disasters, to government agency programmes intended to prevent, inspect and monitor these causes, as well as a variety of response plans, forecasting and early warning systems. The effective implementation of these plans, programmes, legislative tools and guidance is considered to reduce the risk of these events to a level which is as low as reasonably possible.

21 Due to the nature and surroundings of the Proposed Development, many of the events listed in the London Risk Register (e.g. wildfires, animal diseases, etc.) are not considered relevant or likely to pose a risk to future site users or surrounding receptors. The remaining events in the London Risk Register will be managed, or altogether avoided, through the aforementioned established regulatory framework and the control measures implemented at the local and/or national government level, with the support of specialist government agencies.

22 In some cases, this risk management process will be further supported with project-specific information and assessments which form part of the EIA and the planning process. This includes the requirement for a site-specific Flood Risk Assessment which will address the flood related risks as listed in the London Risk Register.

23 The major accidents or disasters listed in the London Risk Register that are considered relevant to the Proposed Development are outlined in Table 1 below.

Table 1 Major Accidents or Disasters Relevant to the Proposed Development

Categories / Description	LRP Risk Rating	Potential for Proposed Development to exacerbate effects on environmental receptors	Scoped in/out
Natural Hazards			
Human Diseases / Human Health Incidents: For Influenza and Emerging disease outbreaks (Pandemic).	High to Very High	The spread of human disease is more likely in areas with a higher population density. From the Covid-19 Pandemic, businesses have adapted to the measures required to reduce the spread of infectious human diseases. Government guidance shall be followed as appropriate to the circumstances to respond to and manage any potential further pandemic or outbreak of a new or emerging infectious disease. The risk management process is Government driven using legislative controls where necessary. Hospital and healthcare facilities in the local area will in either case be familiar with addressing the challenges around managing potential infectious disease outbreaks. There are suitable resources within the local area to respond to such an event. It is not considered that the vulnerability of the Proposed Development to these events would in any way worsen effects for any other nearby receptors.	Out
Flooding: Covering a range of scenarios including fluvial, surface water run-off and tidal flooding and combinations thereof.	High to Very High	The site is located within Flood Zone 1 (low risk). The risk of fluvial or tidal flooding to the site is considered negligible. EA mapping indicates that the site has a 'very low' surface water flood risk. Due to the scale of the Proposed Development, a Flood Risk Assessment (FRA) will be produced, which will form part of the planning application and will be summarised within the **ES Volume 1, Chapter 4: The Proposed Development**. On this basis, a separate. 'Water Resources and Flood Risk' impact assessment and ES chapter has been scoped out of (i.e. excluded from) the EIA, as significant effects are not considered likely. Any potential flood risks (including an allowance for climate change) identified as part of the FRA will be addressed by identifying suitable mitigation measures that will be embedded into the design of the Proposed Development. Similarly, a Drainage Strategy will ensure the Proposed Development complies with local and national guidance. On this basis, significant effects associated with flood risk and drainage are not considered likely.	Out
Severe Weather: Including drought, severe storms, low temperatures/heavy snow and heatwaves.	High	Water usage within the operational Proposed Development could contribute to the depletion of limited water resources in times of severe drought. This shall be addressed through the implementation of appropriate design and operational principles to ensure efficient use of water on site, in line with local planning policy. The Proposed Development would result in new site users which could potentially be affected by prolonged periods of excessive hot or cold weather, should it arise. The Proposed Development will be built to the latest Building Regulations requirements,	In (partially – relating to high wind speeds only)

Categories / Description	LRP Risk Rating	Potential for Proposed Development to exacerbate effects on environmental receptors	Scoped in/out
		and it is likely that internal thermal comfort will be managed through Mechanical Ventilation systems which offer a high degree of control. With regards to severe storms involving high wind speeds, the effects of the Proposed Development on the local wind microclimate will be assessed in the EIA. While the assessment will only account for predominant local wind conditions, any adjustments to scheme to mitigate effects on pedestrian safety and comfort criteria will contribute to reducing the vulnerability of the Proposed Development under more extreme wind conditions. In the majority of these severe weather scenarios it is considered the main risks to site users on the Proposed Development will be during the travel to and from the site. In such weather events it is assumed that employers will often respond to extreme weather forecasts and warnings by advising their employees not to travel to work. In any case, the Proposed Development will adhere to the latest Building and Health Safety Regulations to ensure site users are protected from external weather conditions.	
Structural Incidents: Relating to land movement.	Medium	The Proposed Development will be subject to the most up to date construction, renovation, maintenance and demolition standards. The site is not located near any geological features likely to be affected by landslides.	Out
Severe Space Weather: Relating to the effects of solar winds and its potential effects on power distribution networks, satellite services, aviation and other digital systems.	Very High	Due to the nature and wide scale of effects which could result from severe space weather, there are limited measures which could be put in place to limit the vulnerability of the Proposed Development to such events. It is not considered, however, that the vulnerability of the Proposed Development to these events would in any way worsen effects for any other nearby receptors.	Out
Man-Made Major Accidents and Incidents			
Major Industrial Accidents: Covering a range of scenarios involving explosions, fires and the release of a range of hazardous and combustible materials from industrial processes. Other scenarios considered include structural collapse of a man-made structures and technical failures in industrial facilities.	Low to High	There are a significant number of potential scenarios which are considered in the London Risk Register under this category. The majority of these scenarios are specific to industrial facilities and infrastructure which due to the intended use of the Proposed Development are not considered relevant. Of the scenarios considered, the ones relevant include localised fires and building collapse. These will be managed outside of the EIA process through a combination of legislative and industry guidance which mitigate the risk of fire and/or structural collapse causing a major accident in new developments within the urban environment. Legislative requirements include the 'The Construction (Design Management) Regulations 2015', which provide guidance on fire safety requirements for new buildings, while requirements under the Building Regulations and associated guidance relate to the structural safety and broader health and safety considerations for people in and around buildings. Compliance will also be achieved by adopting structural and fire engineered solutions where the size and scale of the development necessitates bespoke measures to address these risks.	Out
Major Transport Accidents: Considers a range of transport related accidents for different modes of transportation, including road, air, rail and sea.	Low to High	The Proposed Development is located adjacent to Hampstead Road (A400) and Euston Road (A501). As per the Daylight, Sunlight, Overshadowing, Solar Glare and Light Spill Topic Sheet, there is potential for solar glare effects to road users; however, mitigation measures to reduce these effects will be incorporated into the design of the Proposed Development. In the event of a major transport accident affecting the site, it is thought the Proposed Development would not exacerbate effects on nearby receptors. Tall building developments need to be assessed to determine if they pose a risk to air traffic. Due to the height of the Proposed Development and its location relative to the safeguarding zones for London's airports, it is considered the scheme does not pose any risk to air travel and this assessment has been scoped out of the EIA.	Out
Disruptive Industrial Action: Covering industrial action by workers in a range of public and other services industries.	Medium to High	It is anticipated that site users of the Proposed Development could be subject to the effects of industrial action in key services and emergency response sectors, but this will not be any more so than for other surrounding sites in the area. In no case is it anticipated that the effects of these events on nearby receptors would be magnified by any vulnerability of the Proposed Development.	Out

Categories / Description	LRP Risk Rating	Potential for Proposed Development to exacerbate effects on environmental receptors	Scoped in/out
Public and Crowd Events: Relating to the mass influx of non-resident British nationals and public disorder	Medium	Given the intended use for the site, it is not anticipated that the Proposed Development will cause an influx of non-resident British nationals and cause public disorder relating to the crowds associated with a public event.	Out
Malicious Attacks	High to Very High	The location of the Proposed Development and its intended use will make it unlikely to be specifically targeted by malicious attacks. The Proposed Development will also include measures for designing out crime. The Proposed Development is also located close to GP surgeries and hospitals, in the event of a malicious attack.	Out
Accidental Release of a Biological Substance/Large Toxic Chemical Release/Accidental Release of a Biological Pathogen	High	With regards to the inclusion of laboratory enabled space within the Proposed Development, it is acknowledged that it is possible that some chemicals or other regulated substances may be present on site. The Proposed Development will have to comply with all regulations and guidance relating to the storage and use of such substances. If regulated substances were present at sufficient levels (which is not considered at all likely given the volume and controlled quantities within the COSHH Regulations), then additional consents may be required pursuant to the Planning (Hazardous Substances) Regulations 2015 or Control of Major Accident Hazards Regulations 1999. The use and storage of chemicals and regulated substances will therefore be appropriately managed through the established regulatory framework and the control measures implemented at the local and/or national government level. In addition, any laboratory areas which confirm chemicals are to be used would be fitted with an appropriate air extraction system designed in accordance with all relevant regulations and guidance documents.	Out

24 When considering that the laboratory enabled spaces within the Proposed Development, these will be subject to the relevant Health and Safety legislation and guidance and (if necessary) specific additional consenting regimes, and that these uses have been considered within the events assessed in the London Risk Register, it is considered that the vulnerability of the Proposed Development to major accidents, hazards and natural disasters will be adequately managed throughout the lifetime of the project.

25 IEMA's guidance Major Accidents and Disasters in EIA specifically references that major accidents and/or disasters can be scoped out if it can be demonstrated that 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. As outlined above, the Proposed Development will be subject to a stringent set of regulations and guidance which control the design and mitigation of laboratories, through which any potential significant effects are mitigated. The ES for the Proposed Development will therefore not specifically consider the issue of major accidents and natural disasters any further in relation to the inclusion of laboratories within the Proposed Development, as they will be appropriately managed through the established regulatory framework and the control measures implemented at the local and/or national government level.

Conclusion

26 In line with the above, it is considered that the vulnerability of the Proposed Development to major accidents and natural disasters will be adequately managed throughout the lifetime of the project. As such, it is considered that the vulnerability of the Proposed Development to such events, is in itself, unlikely to result in any significant effects on introduced site users and surrounding environmental and human receptors.

27 Therefore, project vulnerability to major accidents and natural disasters is **scoped out** of the EIA. An assessment of wind microclimate will be included as a separate chapter of the ES.

TOPIC SHEET

WASTE AND MATERIALS

Introduction

1 It is considered that significant effects relating to waste and materials are unlikely and as such this topic is **scoped out** of the EIA. Further detail is provided below.

Materials

Demolition and Construction

2 During demolition and construction, it is anticipated that materials for constructing the Proposed Development will be sourced from:

- The site, in terms of any 'waste for recovery'[1]; and
- Within the London Borough of Camden (LBC) and London.

3 In accordance with IEMA's guide to Materials and Waste in Environmental Impact Assessment[2], materials are considered to be sensitive receptors and include *"physical resources that are used across the lifecycle of a development. Examples include concrete, aggregate, asphalt, bricks, ballast, mortar, glass and timber."*

4 The key material components that the Proposed Development will likely be constructed from[3] include (but are not limited to):

- Concrete in substructures;
- Frame/upper floors in steel;
- Frame/upper floors in concrete;
- Façade cladding (e.g. stone, brick, tiles, metal, wood, concrete, glass, composite material);
- Glazing (glass);
- Roof finishes (e.g. asphalt, wood, metal, stone, clay, slate, glass and plastic, plastic liquid coatings);
- Internal walls (e.g. brick, timber, steel, plasterboard, timber, fibreboard, insulation);
- Ceilings (e.g. gypsum, plasterboard, metal, tiles, wood, drywall);
- Wall and floor finishes (e.g. carpet, linoleum / vinyl, wood, tiles, stone, concrete, drywall); and
- Hard and soft landscaping (e.g. soils, mulch, sands, stone paving slabs, wood, tarmac, stones and gravel etc.).

[1] *Defined by IEMA's guide to Materials and Waste in Environmental Impact Assessment (2020) as 'waste' materials that go through an acceptable recovery process, to lose their status as 'waste' and become materials for other uses.*
[2] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment.*
[3] *Subject to ongoing design development*

Mitigation

5 IEMA's guide to Materials and Waste in Environmental Impact Assessment refers to different types of mitigation measures to prevent or reduce adverse effects relating to materials and waste:

- Primary mitigation measures: are *"an intrinsic part of the development, and do not require additional action to be taken"* [4]; for example, choosing to refurbish an existing building, rather than demolish it;
- Secondary mitigation measures: are "*foreseeable actions brought out by the environmental assessment process, and that have not previously been achieved through primary and tertiary mechanisms*"[5]; for example, the implementation of a Procurements Strategy or Construction Environmental Management Plan (CEMP) (or equivalent) or Site Waste Management Plan (SWMP); and
- Tertiary mitigation measures: are "*those that are in place with or without the iterative EIA process*" and include "*those that will be undertaken to meet existing legislative requirements, of those that are considered standard practices used to manage commonly occurring environmental effects*" [6]; for example, sending waste to active and permitted waste management sites, which have to adhere to the requirements of the Environmental Permitting Regulations[7], whereby carrying out certain types of activity (such as receiving waste for landfill) requires an active and permitted waste management site to hold an environmental permit to do so.

6 In view of the above, measures will be implemented to reduce the quantity of materials used during the construction of the Proposed Development. The key construction materials will be:

- Recovered from off-site sources (e.g. donor sites) as far as reasonably practicable;
- Sourced locally as far as reasonably practicable;
- In so far as reasonably practical, sourced in accordance with The Green Guide to Specification[8] to reduce the environmental impact of the construction of the Proposed Development by an informed and responsible selection of construction materials and components (for example, for the floors, roofs, walls, windows, insulation and landscaping of the Proposed Development);
- Reclaimed or recycled materials, where feasible, or from other low carbon sources, e.g. Electric arc furnace steel;
- Sourced via a defined Procurement Strategy, which will select materials with a percentage of recyclable content where feasible;
- Managed via the implementation of a CEMP (or equivalent), which will include measures such as:
  - A 'just-in-time' material delivery system to avoid materials being stockpiled and spoiled during bad weather;
  - Where feasible, a preference in favour of pre-manufactured and site assembled components;
  - Consideration of material quantity requirement to avoid over-ordering and generation of waste materials; and
  - Designated storage area for new building materials, to reduce the risk of damage / spoiling.

7 Measures such as the above shall be implemented pursuant to planning conditions; therefore, it is considered that significant adverse effects during the demolition and construction of the Proposed Development on materials would be unlikely.

8 On the basis of the above, it is proposed to scope out an assessment of demolition and construction effects on materials from the EIA; however, the ES will set out within **ES Volume 1, Chapter 5: Demolition and Construction**:

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[4] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 19).*
[5] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 27).*
[6] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment (page 20).*
[7] *The Environmental Permitting (England and Wales) Regulations 2016*
[8] *BRE, (2009); The Green Guide to Specification, Fourth Edition.*

- The approximate type and quantities/volumes of materials that are anticipated to be required for the construction of the Proposed Development;
- Details of the Procurement Strategy (if known);
- The sustainability credentials of materials (if known); and
- The commitment to undertaking the measures outlined above.

Operational Development

9 The materials anticipated to be required during the operation of the Proposed Development are expected to be primarily used for maintenance purposes. Given that: 1) the quantities of materials to be used would be far less than that used during demolition and construction of the Proposed Development; and 2) the scale and massing of the Proposed Development (and so the expected maintenance required) would be typical for a commercial/industrial development, it is considered that significant adverse effects on materials due to the ongoing operation/use of the Proposed Development would be unlikely.

10 On the basis of the above, it is proposed to scope out an assessment of operational effects on materials from the EIA.

Waste

Baseline Waste Context

11 The London Plan 2021 [9]provides waste apportionment targets and forecast arisings for LBC, detailed in Table 1 below.

Table 1 LBC Household (HH) and Commercial and Industrial (C&I) Apportionment Targets and Projections

Waste Capacity	Capacity / Apportionments (tonnes)	
	2021	2041
Camden Forecast Arisings	360,000	374,000
London Plan Apportionment (2021)	133,000	141,000

12 Though the LBC forecast arisings exceed the apportionment within the London Plan, the LBC are part of the North London Waste Authority (NLWA) who manage waste disposal on behalf of the London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest.

13 The north London boroughs have pooled their apportionments and the North London Waste Plan (NLWP)[10] confirms they will meet this collectively through existing sites and land allocated within the NLWP.

14 The NLWA are constructing a new publicly owned Energy Recovery Facility (ERF) with an annual capacity of up to 700,000 tonnes, in addition to a new Resource Recovery Facility (RRF) with capacity to manage up to 135,000 tonnes of wood, plastic and metal every year.

Hazardous Waste

15 It is anticipated that low levels of hazardous waste would be generated as part of daily operations, to be managed on site in accordance with prevailing legislation for each material, determined by the specifics of its physical and chemical properties.

16 A specialist contractor would be appointed to collect and dispose of hazardous materials in accordance with all prevailing legislation and guidance.

[9] *GLA (2021) The London Plan 2021*
[10] *NLWA (2022) North London Waste Plan*

17 Table 2 below extracted from the NLWP summarises the management of hazardous waste within north London.

Table 2 Annual Hazardous Waste Treatment in North London (2016)

Waste Stream	Waste Arising (Tonnes)	Managed in North London (Tonnes)	Managed Elsewhere in London (Tonnes)	Exported to Landfill Outside London (Tonnes)	Exported to Other Facilities Outside London
Hazardous Waste	53,420	313	12,663	8,557	31,887

Demolition and Construction

18 During demolition and construction, it is anticipated that any waste for recovery or waste for disposal generated from the site would be directed to active and permitted waste management sites within the LBC or London.

19 In accordance with IEMA's guide to Materials and Waste in Environmental Impact Assessment[11], landfill capacity is considered to be a sensitive receptor. The types of waste (whether this be waste for recovery or waste for disposal) anticipated to be generated by the demolition and construction of the Proposed Development include:

- Concrete;
- Brick;
- Glass;
- Slate;
- Plastic and packaging;
- Mixed metals;
- Gypsum;
- Mixed demolition and construction waste;
- Canteen waste (e.g. foil, cardboard, plastic packaging, food waste etc.);
- Card and paper; and
- Hazardous waste (e.g. oils, paints, adhesives etc.).

Mitigation

20 As noted in the 'Materials' section of this topic sheet, different types of mitigation measures are available.

21 A CEMP (or equivalent) will be prepared and implemented throughout the demolition and construction works pursuant to a planning condition/s. The CEMP may be supported by a Site Waste Management Plan (SWMP) and Circular Economy Statement (CES) which would also be prepared and implemented throughout the demolition and construction works pursuant to a planning condition/s. Together, the measures defined within the CEMP and SWMP will minimise waste arising from construction materials; example management measures include but are not limited to:

- Avoiding the stockpiling of construction materials by use of 'just in time' material delivery systems;
- Preventing the overordering of construction materials by carrying out upfront cost analysis works; and
- Storing the construction materials in an appropriate location that will minimise damage to materials.

22 Further to the above, additional mitigation measures that will be implemented include, but are not limited to, the following:

- The Applicant is committed to re-using demolition and construction waste (for recovery) on-site. The approximate quantities of waste anticipated to be generated by the demolition and construction of the Proposed Development will be set out in the ES;

[11] *IEMA, (2020); IEMA guide to: Materials and Waste in Environmental Impact Assessment.*

- Should hazardous or contaminated materials be identified, works in the area will temporarily stop, and the materials will be removed and disposed of in line with relevant legislation and guidance e.g. The Control of Asbestos at Work Regulation 2012 and Control of Substances Hazardous to Health Regulations (COSHH) 2002;
- The setting of waste reduction targets and waste re-use/recycling targets prior to commencing works on-site and monitoring of such targets throughout the duration of the demolition and construction works; and
- The implementation of waste segregation measures, whereby segregating the key/main waste streams, waste for recovery can be identified prior to leaving the site.

23 The LBC has sufficient capacity (when including land suitable for new waste facilities) to manage apportionment targets, and the enforcement of and adherence to mitigation measures that would be implemented pursuant to planning conditions, any additional waste generated from the demolition and construction of the Proposed Development will be unlikely to cause strain on the LBC's waste management facilities. Therefore, significant adverse effects on the local waste management infrastructure and landfill capacity, resulting from the waste expected to be generated during the demolition and construction of the Proposed Development, are considered unlikely.

24 On the basis of the above, it is proposed to scope out an assessment of the Proposed Development's demolition and construction effects on waste/landfill capacity; however, the ES will set out in **ES Volume 1, Chapter 5: Demolition and Construction**:

- The approximate type and quantities/volumes of demolition and construction waste that are expected to be generated by the Proposed Development;
- The percentage or volumetric target for re-use of demolition and construction waste (for recovery) on-site; and
- An outline of the waste aspects of the CEMP and/or SWMP (or equivalent).

Completed Development

25 During the operation of the Proposed Development, it is anticipated that any waste for recovery or waste for disposal generated from the site would be directed to active and permitted waste management sites within the NLWA or London.

26 The key waste materials expected to be generated by the operational Proposed Development include:

- Organic/compostable waste;
- Dry mixed recyclables;
- Paper and cardboard;
- Packaging wastes;
- Waste electrical and electronic equipment (WEEE) wastes;
- Bulky waste;
- Hazardous waste; and
- Residual waste.

27 All clinical waste producers have a legal 'duty of care' to ensure all wastes produced on their sites are responsibly managed and that safe systems[12] of work are in place for the collection, storage, handling, transportation and disposal of waste materials. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009, as amended, also place statutory 'duty of care' obligations on the waste producer as a 'consignor' of substances/articles classed as dangerous goods for the purposes of carriage on public roads and highways. An Operational Waste and Recycling Management Strategy will be prepared and submitted alongside

[12] *Department for Transport (DfT) (2009) The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009*

the planning application, taking into account all of the waste streams generated as a result of the Proposed Development, including clinical (infectious, sharps and chemically contaminated) domestic and recycling wastes and chemical wastes, although on a smaller scale. The Proposed Development will be designed in line with and managed in line (including the Operational Waste and Recycling Management Strategy), with the following policy and guidance:

- European Waste Framework Directive[13];
- The Waste (England and Wales) Regulations 2011[14], as amended;
- Waste Strategy for England 2018 – Our Waste, Our Resources: A Strategy for England[15];
- The London Plan 2021;
- The Mayor's Business Waste Strategy 2011[16];
- The Building Regulations 2010[17];
- British Standard 5906:2005 Waste Management in Buildings – Code of Practice[18]; and
- Health Technical Memorandum (HTM) 07-01[19].

Mitigation

28 The design of the Proposed Development will ensure there is sufficient storage and equipment/provisions (in accordance with the LBC requirements) in place to manage and direct the operational waste, expected to be generated by the Proposed Development, to the relevant storage areas provided. The design of the Proposed Development will also ensure there is sufficient space for the collection of waste to be relocated to the relevant active and permitted waste management sites.

29 In addition to the above, an Operational Waste Management Strategy (OWMS) (or equivalent) will be prepared and implemented as part of the Proposed Development, which will include information on the type and quantities/volumes of waste streams anticipated to be generated by the operational Proposed Development, along with how each waste stream will be managed. The strategy will also provide details on how waste will be reduced, minimised and recycled, where possible, in line with the Waste Hierarchy and the LBC's requirements.

30 Based on the research identifying that the LBC has sufficient capacity (as part of NLWA) to manage apportionment targets, and the enforcement of and adherence to mitigation (waste management) measures that would be implemented pursuant to planning conditions, any additional waste generated from the operational Proposed Development will be unlikely to cause strain on the NLWA's waste management facilities. Therefore, significant adverse effects on the local waste management infrastructure and landfill capacity, resulting from the waste expected to be generated during the operation of the Proposed Development, are considered unlikely.

31 On the basis of the above, it is proposed to scope out an assessment of the Proposed Development's operational effects on waste / landfill capacity; however, the ES will set out:

- The approximate type and quantities/volumes of operational waste that are expected to be generated by the operational Proposed Development; and
- A summary of the Operational Waste and Recycling Management Strategy prepared as part of the Planning Application.

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[13] *European Commission (2008) European Waste Framework Directive*
[14] *(2011) The Waste (England and Wales) Regulations 2011*
[15] *Department for Environment, Food and Rural Affairs (DEFRA) (2018) Our Waste, Our Resources: A Strategy for England*
[16] *(GLA) (2011) The Mayor's Business Waste Strategy*
[17] *HM Government (2010) The Building Regulations 2010*
[18] *British Standard (BS) (2005) 5906:2005 Waste Management in Buildings – Code of Practice*
[19] *Department of Health (DoH) (2013) Health Technical Memorandum (HTM) 07-01*

TOPIC SHEET

WATER RESOURCES, DRAINAGE AND FLOOD RISK

Introduction

1 It is considered that significant effects relating to water resources, drainage and flood risk are unlikely and as such, this topic is **scoped out** of the EIA. The following sections outline:

- the site's baseline water resource conditions, identifying sensitive receptors and potential effects, concluding that significant effects are unlikely; and
- the scope of the Flood Risk Assessment (FRA) and Drainage Strategy (DS) report to be included in the planning submission for the Proposed Development.

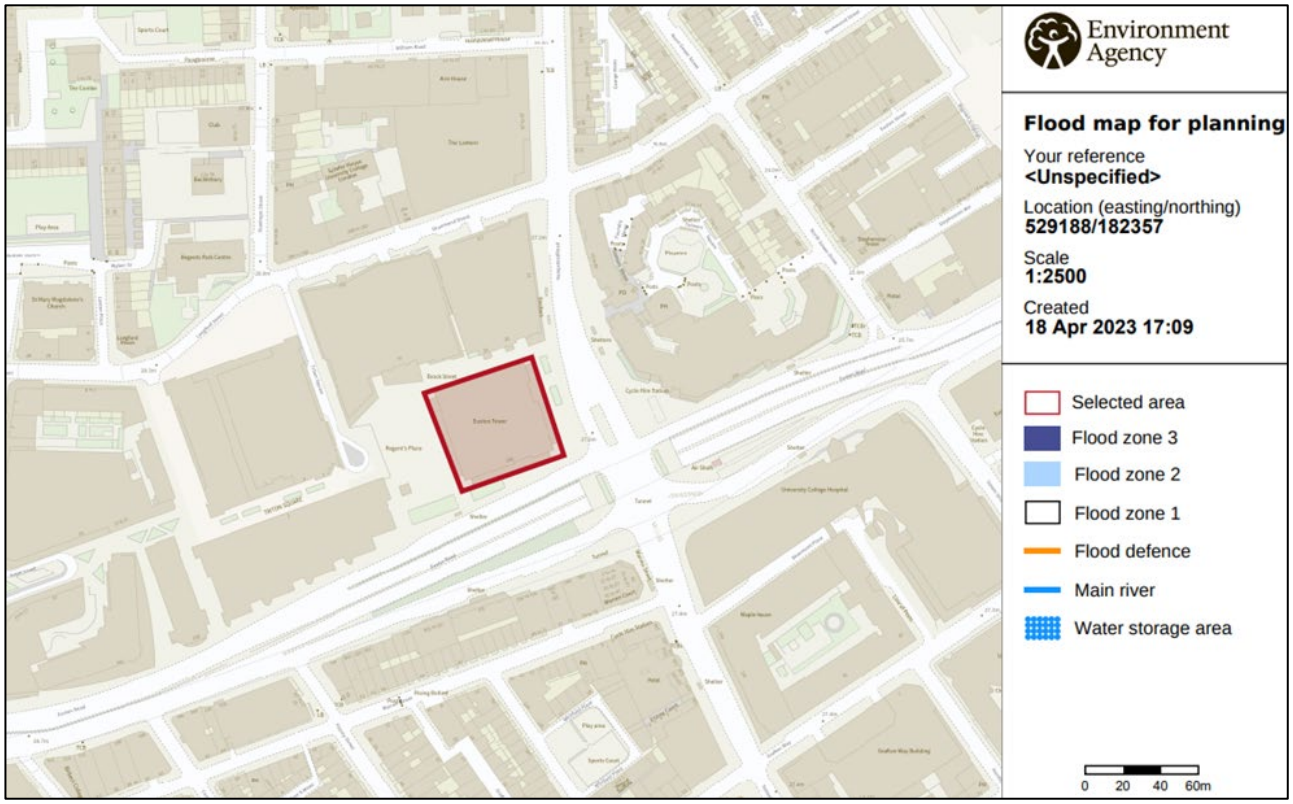
2 The following review and summary have been provided by Arup.

Baseline Conditions

Flood Risk, Surface Water and Hydrogeology

3 As shown in Figure 1 the site, in its entirety, is located in Flood Zone 1; Flood Zone 1 is land assessed as having a low risk of flooding from rivers and the sea, equivalent to a 0.1% Annual Exceedance Probability (AEP), AEP being the probability of an event occurring in any given year.

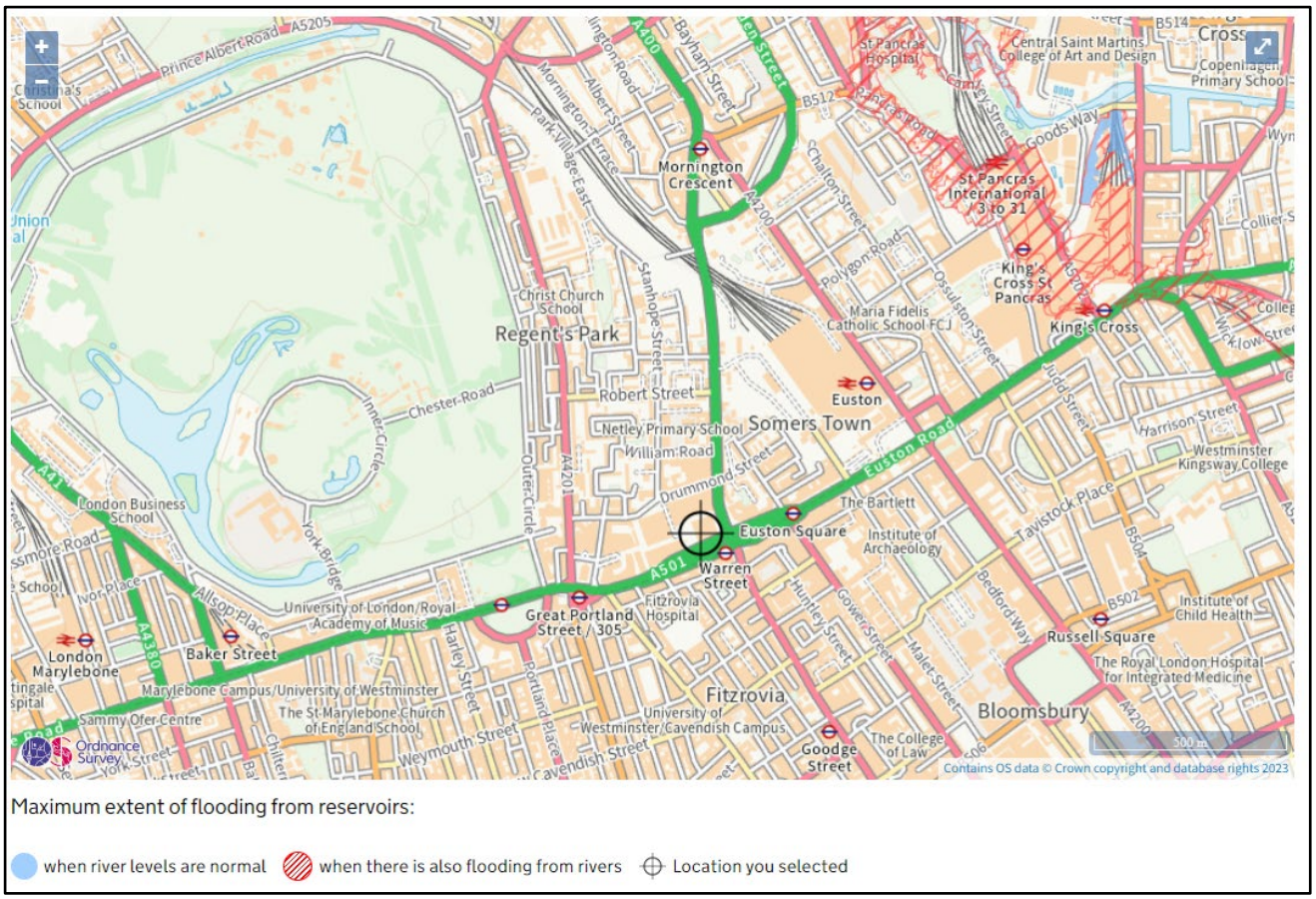
Figure 1 Flood Map for Planning (GOV.UK, 2023)



4 There are artificial surface water features present within the local area. The site is located 1.3km from Regent's Canal, and 900m from the Regent's Park Boating Lake. Regent's Canal is managed by the Canal & River Trust (CRT), whilst the boating lake sits within land managed by the London Borough of Camden (LBC).

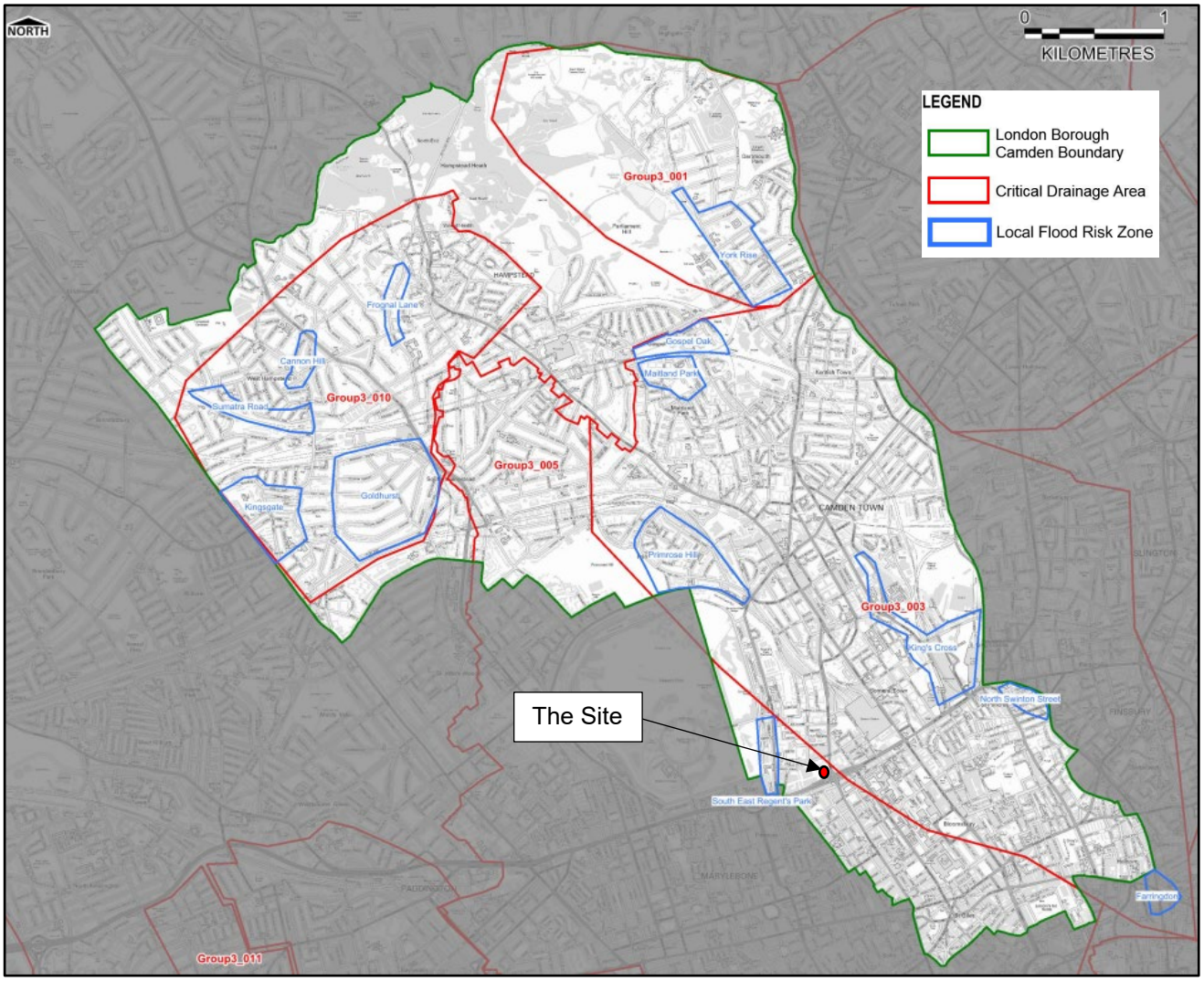
5 The Environment Agency's (EA) Long Term Flood Risk Mapping, shown in Figure 2, indicates that the site is not at risk of flooding from reservoirs. In general, this is not considered a significant flood risk anyway as flooding from this source is extremely unlikely to occur and there has been no loss of life in the UK as a result of it since 1925. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the EA ensures that reservoirs are inspected regularly, and essential safety work is carried out.

Figure 2 EA Long Term Flood Risk Map – maximum extent of flooding from reservoirs (GOV.UK, 2023)



6 According to the LBC Strategic Flood Risk Assessment (SFRA)[1] the site is located within a Critical Drainage Area (CDA) (reference *Group3_005*) as shown on Figure 3. A CDA is defined as an area where multiple and interlinked sources of flood risk cause flooding during severe weather thereby affecting people, property or local infrastructure.

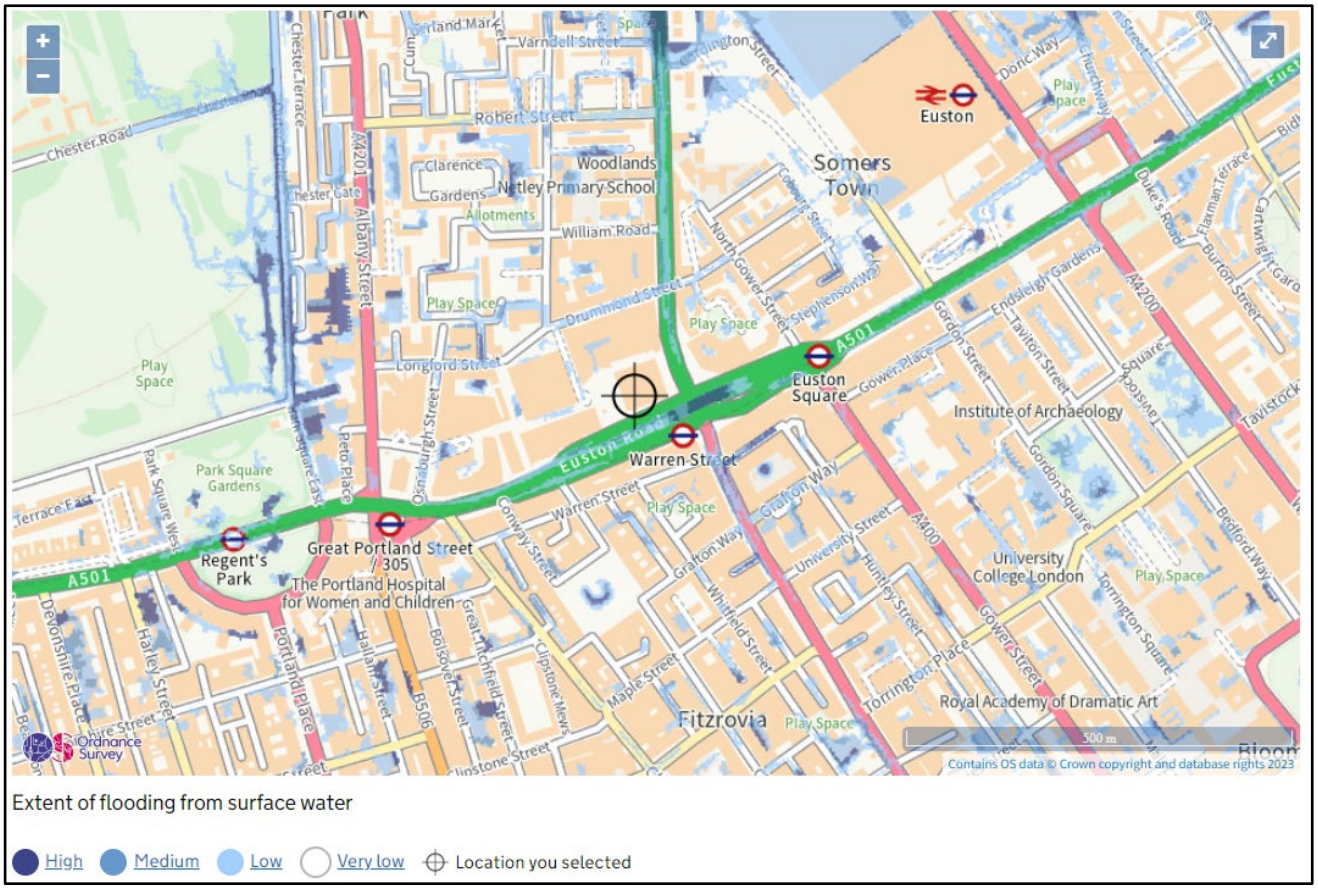
Figure 3 Critical Drainage Areas in the London Borough of Camden (LBC, 2014)



[1] *LBC, (2014); Camden Strategic Flood Risk Assessment*

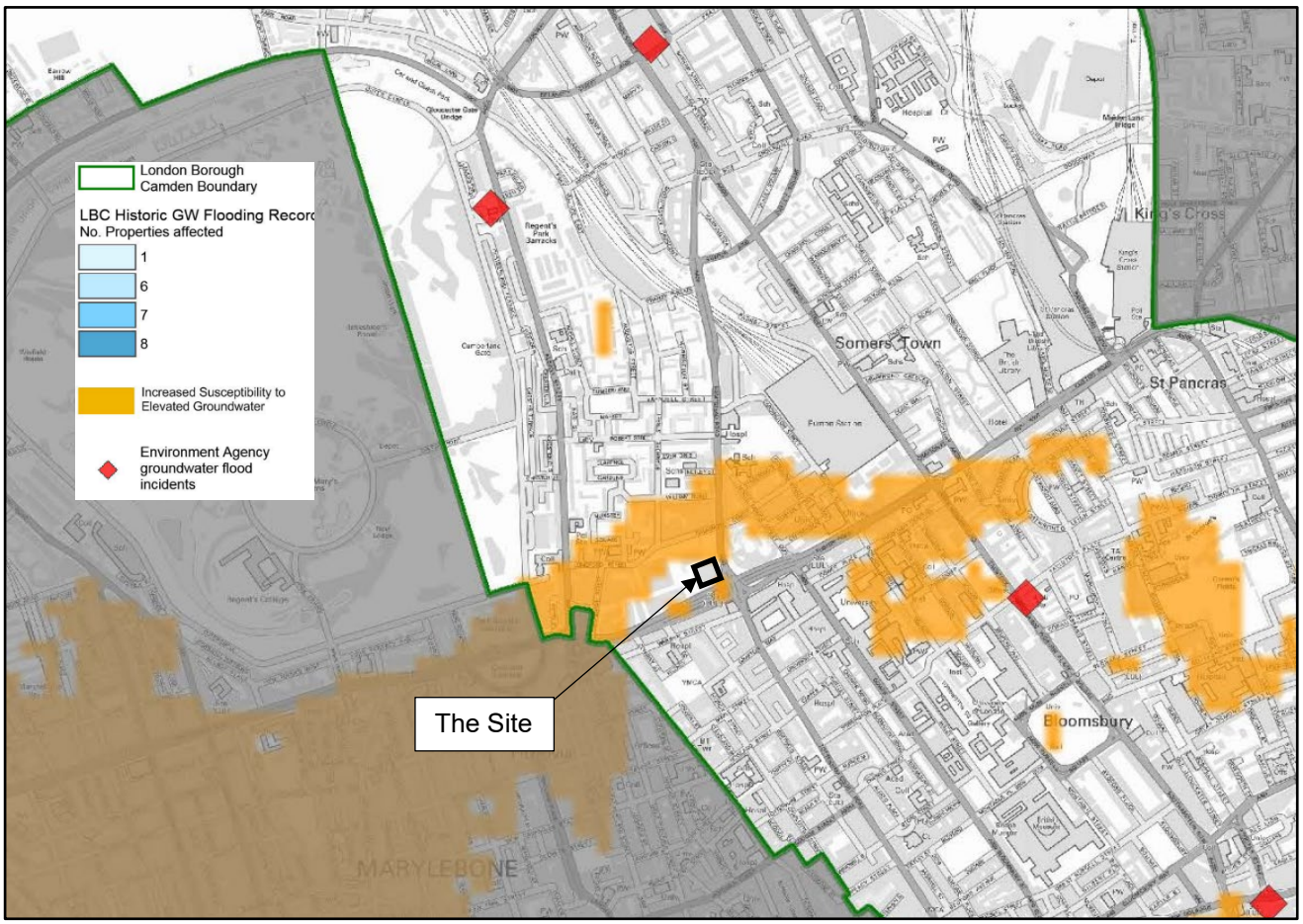
7 Despite this, the EA map of Flood Risk from Surface Water, shown in Figure 4, indicates that the site itself is at very low risk of flooding from surface water. “Very low risk” is classified as having less than 0.1% AEP. There is a low to high risk of surface water flooding along Euston Road to the south-west, and small isolated areas at low risk of flooding to the north-west of the site.

Figure 4 EA Flood Map for Surface Water (GOV.UK, 2023)



8 According to the LBC SFRA, though the site itself does not have increased susceptibility to elevated groundwater, there are areas in close proximity that do, notably to the north (see Figure 5). It is worth acknowledging that there are no historic records of groundwater flooding of properties in the vicinity of the site, the nearest incident being recorded approximately 800m away in Bloomsbury. Ground Investigation data will be reviewed to establish the groundwater level on the site as part of the site-specific FRA.

Figure 5 Map of Increased Susceptibility to Elevated Groundwater (LBC, 2014)



9 According to the LBC SFRA, the site is underlain by the London Clay Formation, which is a non-aquifer or unproductive strata – i.e. bedrock with low permeability that has negligible significance for water supply or river base flow. Furthermore, the LBC SFRA does not identify the site as being located within a Groundwater Source Protection Zone (GSPZ), i.e. an area where there are likely to be risks posed to quality and/or quantity of groundwater abstracted.

Sewerage and Water Supply Infrastructure

10 The existing site and its environs are heavily urbanised. The Thames Water Utilities Limited (TWUL) asset records show that the site and the surrounding area is currently served by a network of public combined water sewers. The asset records indicate that the existing sewer network consists of primarily strategic combined sewers, with a 1372X864mm trunk combined sewer that runs northwards along Hampstead Road directly east of the site, and a 1143X762mm trunk combined sewer that runs eastwards along Euston Road directly south of the site. There are no dedicated surface water sewers, and both foul and surface water flows from the site discharge into the public combined sewer network.

11 According to the LBC SFRA there are no historic records of internal or external sewer flooding in the part of the Borough where the Site is located.

12 The TWUL asset records shows that the Site is served by a number of connections to the public potable water network, with 18-inch (c. 450mm) and 16-inch (c. 400mm) diameter trunk mains located in Euston Road and Hamstead Road respectively.

Discussion for Scoping Out

Flood Risk, Surface Water and Hydrogeology

13 Flood risk is regulated through the National Planning Policy Framework (NPPF), which outlines the need for a site-specific FRA to be produced for all sites located within Flood Zone 2 and 3, those larger than one hectare, or those with critical drainage problems.

14 Although the site area does not exceed one hectare and is not located in Flood Zones 2 or 3, a site-specific FRA is required for the Proposed Development due to its location within a CDA. The FRA will be carried out in line with the NPPF and accompanying Planning Policy Guidance (NPPG) and will assess flood risk to the Proposed Development from fluvial and tidal, pluvial, groundwater and artificial sources, including sewers and reservoirs. The FRA will demonstrate that the Proposed Development is safe for its lifetime and that it does not increase flood risk elsewhere.

15 The FRA will also include appropriate recommendations for flood risk mitigation measures, as well as demonstrating safe access / egress routes for the Proposed Development as required. The FRA will assess the residual risk of flooding assuming the implementation of such measures.

16 Due to potential alterations to the existing basement as part of the Proposed Development, it is considered necessary to confirm the groundwater level on the site so that risk of groundwater ingress at basement level can be adequately evaluated and, if necessary mitigated through the structural design. A Basement Impact Assessment (BIA) will be submitted in support of the planning application, which will include an assessment of the impact of the proposed basement on flood risk and water resources; however, as there is an existing basement on the site the likely effects are considered likely to be insignificant once any mitigation measures are implemented. Although the site is not located in a Source Protection Zone, the BIA will discuss mitigation measures with a view to maintaining groundwater quality. Refer to *Demolition and Construction Works* section for further commentary of relevance to groundwater protection measures.

17 As the site is located in a CDA it is considered particularly important to demonstrate that a drainage strategy has been developed that adequately caters for the discharge of surface water and foul flows from the Proposed Development. As part of the FRA to be submitted as part of the Planning Application, a surface water drainage strategy will be presented. The strategy will present the existing site condition with respect to drainage, commenting on topography, existing surface water flow routes and sewerage infrastructure.

18 With respect to surface water, the strategy will propose a limiting discharge rate, as well as identifying the means of discharge in line with the drainage hierarchy set out in the London Plan[2]. The strategy will give consideration to both the quantity and quality of surface water discharged and will include an appraisal of the feasibility of Sustainable Drainage Systems (SuDS) in line with current planning policy and industry best practice. The strategy will give an indicative attenuation volume to be provided to meet the proposed discharge rate, with the inclusion of an appropriate allowance for climate change.

19 Through a well informed and considered design process regarding flood risk and surface water drainage considerations, coupled with appropriate measures through the design to manage the residual flood risk at the site following redevelopment, no likely significant effects associated with flooding and surface water drainage are anticipated in line with London Plan Policies SI 12 and SI 13.

20 Policies SI 12 and SI 13 are Sustainable Infrastructure policies, covering flood risk management and sustainable drainage respectively. Policy SI 12 states that proposed developments “should ensure that flood risk is minimised and mitigated, and that residual risk is addressed” and that "buildings should be designed for quick recovery following a flood”. Policy SI 13 states that proposed developments “should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible … in line with the drainage hierarchy”. Furthermore, the drainage design should aim to increase water efficiency and lead to improvements in water quality.

21 A review of relevant national, regional and local planning policy and guidance will form part of the FRA.

Sewerage and Water Supply Infrastructure

22 A Utilities Assessment will be undertaken to determine the potable water demands and wastewater (foul drainage) flows for the Proposed Development. The existing local (private) infrastructure will be surveyed to confirm condition and capacity with a view to reusing where appropriate.

23 TWUL undertakes modelling of its sewer network to calculate network capacity and to determine which parts of the network are to be upgraded. Consultation will be undertaken with TWUL to understand the extent and capacity of the existing sewer system. During planning, a pre-development enquiry will be submitted to TWUL with expected peak flow rates for internal assessment by TWUL. TWUL will then undertake the appropriate

[2] *GLA, (2021); The London Plan*

modelling work to identify what is required to cater for the flows from the Proposed Development to the public sewer. If formal permission to connect is required, this would be secured via the Section 106 agreement for the site following any future planning consent. The assessment (undertaken by TWUL) would confirm the capacity of the local sewer network and details relating to the point of connection (if new), with the aim of identifying any requirement for works to upgrade the local sewer network (if required) which would be undertaken by TWUL.

24 Where there is existing capacity available in the local sewer network, it is considered the increased peak foul flows will not result in a significant effect on TWUL infrastructure local to the site. If it is determined that capacity within the local sewer network needs to be increased, then TWUL would undertake the appropriate upgrade works to support the development as part of their statutory obligations. Therefore, following these works, any likely effect would remain not significant.

25 TWUL also produces Water Resource Management Plans (WRMP), which set out forecasts for water supply and demand, and outline the strategy proposed to meet consumers' needs into the future. As part of the production of the WRMP, TWUL has considered the projected future growth within its defined catchment area (i.e., London), with forecasts based on underlying source data from Government census data, past trends, and local authorities' forecasts of future population growth. TWUL bases its forecasts on a combination of these sources to determine the most likely scenarios for growth. It is therefore considered that the likely effects of the Proposed Development on water demand have been accounted for strategically within the TWUL assessments.

26 Compared with the existing building, an increase in water demand and foul flows is expected as a result of the Proposed Development due to the increase in floor area. To inform the detailed design stage, consultation with TWUL may result in the need to carry out flow and pressure tests for daily demand estimations for the Proposed Development. This will assess the available capacity in the local supply network and determine whether any upgrades are required to support the Proposed Development. However, the anticipated increase in foul flows generated by the Proposed Development would be compensated in part by the expected reduction in the rate of surface water discharged to the sewer network as a result of the new surface water drainage strategy. Furthermore, smart metering, water-saving and recycling measures to reduce rates of water consumption and to maximise future-proofing will be evaluated at the next design stage in line with London Plan Policy SI5 and incorporated where appropriate. Measures, such as the installation of low-flow fittings and greywater reuse, will also achieve a reduction in the volume of wastewater generated, thereby reducing the overall magnitude of the impact of the Proposed Development on the public sewer network. Following the inclusion of these measures and due to the Thames Water Resource Management Plan, it is considered that sufficient measures will be in place for water demand to be met and so no likely significant effects are anticipated.

Demolition and Construction Works

27 A number of water resources and drainage mitigation measures shall be implemented throughout the construction phase to protect water resources, particularly relating to groundwater and drainage. These mitigation measures can be categorised as 'Pre-Commencement' measures, and measures implemented throughout the demolition and construction works themselves.

28 Pre-Commencement:

- Discharge arrangements into the foul water sewer will be agreed with TWUL;
- All existing utilities will be identified and marked before works commence, with the use of signs to warn of their presence;
- Silt settlement facilities and oil / petrol interceptors will be installed at relevant discharge points into the sewers (for surface water runoff and wastewater discharges); and
- An Emergency Response Plan (ERP) will be prepared, which will set out the procedure to be adopted in the event of a leak or spill.

29 During Enabling and Construction Works:

- Any damage to existing infrastructure would be immediately repaired;
- Any waste effluent will be tested and any water that may encounter contaminated materials or be identified as being contaminated, will be disposed of appropriately and, to the satisfaction of the EA and/or TW; and where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor/s;
- Refuelling and delivery areas will be located away from the local sewer network drains;
- Wherever possible, plant and machinery will have drip trays beneath oil tanks/engines/gearboxes/hydraulics, which will be checked and emptied regularly via a licensed waste disposal operator;

- All liquids and solids of a potentially hazardous nature (e.g., diesel fuel, oils, and solvents) will be stored in designated locations with specific measures to prevent leakage and release of their contents, including the siting of storage areas away from surface water drains, on an impermeable base with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents in accordance with the EA's requirements. Any tanks storing more than 200 litres of oil onsite, will have secondary bunding. Onsite provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material in accordance with the ERP;
- All storage will be protected from vandalism and kept locked up when not in use;
- All relevant contractors will be required to investigate opportunities to sustainably manage the use of water, such as turning off taps when not in use, both on site and within site offices and the use of recycled water / a rainwater harvesting system for equipment such as wheel washes; and
- The water consumption throughout the enabling and construction works will be monitored, either through sub-metering or reading of utility bills, to allow comparison against best practice benchmarks and improvements to be made.

Conclusion

30 The site is located in Flood Zone 1 ('low risk' of flooding from rivers and the sea) and the other baseline conditions in relation to the water environment show that flood risks from most sources are low. Flood risk from elevated groundwater will be evaluated further upon the acquisition of site-specific Ground Investigation records. If groundwater is found to coincide with the proposed basement level, appropriate mitigation measures will be incorporated into the structural design.

31 No likely significant effects are anticipated to water resources throughout the construction phase following the implementation of various standard mitigation measures both during pre-commencement and throughout the construction works, as defined above.

32 In recognition of the site being located in a Critical Drainage Area, a site-specific FRA will be prepared to accompany the planning application.

33 The FRA will include a suitable surface water drainage strategy for the Proposed Development that will incorporate mitigation by design to comply with local and national planning policy to ensure there are no significant adverse impacts associated with surface water drainage from the Proposed Development.

34 TWUL will be consulted throughout the design process to ensure water supply and wastewater discharge requirements are assessed in full and the necessary technical/legal agreements are in place before construction and occupation.

35 Therefore, it is concluded that the Proposed Development is unlikely to result in significant effects associated with water resources and as such further assessment in respect of water resources can be **scoped out** of the EIA.