INTRODUCTION

2.1 This chapter of the ES sets out the overall approach to, and methodology for, undertaking the EIA in respect of the Proposed Development. It details the process for identifying the environmental issues (or 'topics') to be included in the EIA and the method of assessing the likely significant effects that have the potential to arise as a result of the Proposed Development, both during the enabling and construction works, and on completion and occupation of the Proposed Development.

2.2 The Proposed Development is defined by way of the Control Documents set out in **ES Volume 1**, **Chapter 1: Introduction**, and discussed within this chapter and in further detail in **ES Volume 1, Chapter 4: Proposed Development**.

2.3 The methodology of the EIA is in accordance with applicable legislation, guidance, and case law and has been tailored to each topic of the EIA using industry standard methods and criteria, and professional judgment where appropriate. Further detail on how the assessment methodology is applied to each topic is presented within the respective technical assessments and chapters of this ES **(ES Volume 1, Chapters: 6-13** and **ES Volume 2, Townscape, Visual Impact and Heritage Assessment)**.

REQUIREMENTS FOR AN EIA

2.4 EIA is a process carried out which examines available environmental and socio-economic information to ensure that the likely significant environmental effects of certain projects are identified and assessed before a decision is taken on whether a project is granted planning permission. This means environmental and socio-economic issues can be identified at an early stage and projects can then be designed to avoid or to minimise significant adverse environmental effects, and appropriate mitigation and monitoring can be put in place.

2.5 The requirement for an EIA is based on the likelihood of significant environmental effects arising from a proposed development and it is either mandatory or conditional depending on the classification of the development project. EIA developments are divided into Schedule 1 and Schedule 2 developments under the EIA Regulations.

2.6 Schedule 1 developments constitute those that are likely to have significant effects on the environment, such as major chemical or petrochemical projects and construction of ground or air transport infrastructure, and for which an EIA is mandatory. For all other types of developments which fall under Schedule 2, the need for an EIA is determined based on set criteria as follows:

- It is within one of the classes of development stated in Schedule 2; AND
- EITHER it exceeds the applicable threshold criteria for that class of development in Schedule 2; OR it is to be carried out in part or all of a 'sensitive area' (as defined by the EIA Regulations[1]); AND
- It is likely to have significant effects on the environment by virtue of factors such as its nature, size or location.

2.7 Given the nature of the scheme, as described in **ES Volume 1, Chapter 4: Proposed Development,** the Proposed Development falls within the classification of Schedule 2, 10(b) (Infrastructure Projects – Urban Development Projects) of the EIA Regulations. Considering the scale of the redevelopment and the Site and surrounding area context, it was considered that there is the potential for significant environmental effects to arise as a result of the redevelopment. The Proposed Development was therefore considered to constitute 'EIA development' under the EIA Regulations, and so an EIA has been undertaken, which is reported upon within this ES. This ES forms part of the suite of documents submitted as part of the OPA and LBC.

OUTLINE PLANNING APPLICATION

Form of the Planning Application

2.8 The Town and Country (Development Management Procedure) (England) Order 2015[2] ('DMPO') sets out requirements and guidance for outline planning applications. The OPA reserves all matters for later approval by the LBTH through the submission of RMAs; the following matters are reserved for later approval:

- **Amount of Development –** the specifics in terms of the exact amount of floorspace for each land use sought for approval is not provided at this stage. Instead, a defined maximum floorspace (and associated range) for each use class proposed is presented within the Development Specification, and the maximum floor area sought for approval across the entire Proposed Development is provided;
- **Layout –** as defined in the DMPO "*the way in which buildings, routes and open spaces within the development are provided, situated and orientated in relation to each othe*r" is reserved. The Parameter Plans identify a series of Development Zones[3] across the Site where built development can come forward. The Parameter Plans also identify the main routes and open spaces. The Design Guidelines establish a series of rules about how these different elements interact;
- **Access –** as defined in the DMPO "*the accessibility to and within the site, for vehicles, cycles and pedestrians in terms of the positioning and treatment of access and circulation routes and how these fit into the surrounding access network*" is reserved. The Parameter Plans set parameters for the location of vehicle, cycle and pedestrian routes, access and egress to and within the Site. They also show areas where access points to the Proposed Development will be situated (as required under regulation 5(3) of the DMPO);
- **Scale –** As defined in the DMPO "*the height, width and length of each building in relation to their surroundings*" is reserved. The Parameter Plans and Development Specification define the maximum width, length and height of each Development Plot[4]. The Design Guidelines set further rules to control the relationship between different buildings (e.g. height differences or breaks between buildings that come forward within each Development Plot);
- **Appearance –** As defined in the DMPO "*the aspects of a building or place within the development which determine the visual impression the building or place makes, including the external built form of the*

[1] Gov.UK (2017) The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (Part 1 Paragraph 2)
[2] GOV.UK (2015) The Town and Country Planning (Development Management Procedure) (England) Order
[3] Areas within which buildings can arrive, which are defined by a maximum length, width and height.

[4] A building that can arrive within a Development Zone, which is defined by a maximum height and envelope. Development Zones may contain single or multiple Development Plots.

development, its architecture, materials, decoration, lighting, colour and texture" are reserved. The Design Guidelines establish the design principles to be applied to the massing and appearance of the buildings and the public realm at reserved matters stage; and

- **Landscaping –** As defined in the DMPO "*the treatment of land (other than buildings) for the purpose of enhancing or protecting the amenities of the site and the area in which it is situated and includes - (a) screening by fences, walls or other means; (b) the planting of trees, hedges, shrubs or grass; (c) the formation of banks, terraces or other earthworks; (d) the laying out or provision of gardens, courts, squares, water features, sculpture or public art; and (e) the provision of other amenity features*" is reserved. The Parameter Plans identify the areas of public realm and Design Guidelines describe the treatment of the different spaces within the Site. An indicative landscaping plan (presented in **ES Volume 1, Chapter 4: Proposed Development**) which presents potential options of how the landscaping of the Proposed Development could come forward is provided in support of the OPA.

Approach to the EIA

Control Documents

2.9 The assessments contained within **ES Volume 1, Chapters: 6 to 13** and in **ES Volume 2, Townscape, Visual Impact and Heritage Assessment** are based on the Control Documents that define and describe the Proposed Development.

2.10 As discussed in **ES Volume 1, Chapter 1: Introduction**, the Control Documents consist of Parameter Plans, Design Guidelines and a Development Specification. They are documents and plans which describe the principal components of the Proposed Development, set controls and limits which define the scope of the Proposed Development and provide rules and codes to guide future RMAs and the way in which the Proposed Development would come forward. Together, these documents allow the impacts of the Proposed Development to be identified and assessed with sufficient certainty.

2.11 The Control Documents provide a number of development controls, including the maximum building and land use floorspace limits, and a 3-dimensional building envelope within which the detailed design of buildings can come forward through the submission of RMAs. The range of land use classes which could be bought forward in each Development Zone has also been specified.

2.12 The Control Documents that comprise the OPA and for which OPP is sought, are as follows:

- **Development Specification** – a document which defines and describes the principal components of the Proposed Development, including the form and content of the OPA as well as the parameters for future RMA's. The Development Specification outlines the maximum amount of development that could come forward across the Site. The Development Specification provides land use class floorspace ranges for each of the use classes which are being sought for approval and could be brought forward across the Site, and sets a specific minimum floor area for the commercial (B1) and retail (A1-A5) offering. These areas are set within an overall Site wide total floorspace. In addition, proposed floorspace limits for residential type uses, a quantum of minimum open space and target dwelling mix ranges are provided within the Development Specification;
- **Parameter Plans –** these present outline parameters associated with the scale, layout, access and circulation and distribution of Development Zones and use classes for the Proposed Development, comprising:
  - Planning Application Area;
  - Access and Circulation Routes;
  - Land Uses - Ground, Mezzanine & First Floor;
  - Land Uses - Below Ground;
  - Land Uses – Upper Levels (Above First Floor);
  - Buildings and Structures to Be Demolished;
  - Development Zones - Ground Level and Above;
  - Public Realm;
  - Development Plots Maximum Heights;
  - Land Use Building Frontages - Ground, Mezzanine & First Floor Only;
  - Existing Site Levels;
  - Proposed Site Levels; and
  - Marine Deck and Proposed Structures.
- **Design Guidelines –** a document which provides a set of rules and codes which establish the design principles and sets out the way in which the RMAs can be brought forward. The Design Guidelines restrict the Proposed Development from being built out to the maximum parameters (i.e. maximum layout and scale) across all Development Zones, and are in place to ensure that there is variation in height between the buildings being brought forward. The Design Guidelines also provide design guidance for the future design teams involved in the preparation of the RMAs.

2.13 Relevant information provided within the Control Documents that forms the basis for the EIA is discussed in further detail in **ES Volume 1, Chapter 4: Proposed Development.**

Assessment Scenarios

2.14 As flexibility is being sought by the Applicant within the OPA, particularly in regard to the scale and layout of the Proposed Development and the amount of floor area that could come forward for each land use class, the EIA has determined appropriate assessment scenarios that have been applied to each of the technical aspects, on a topic by topic basis, to ensure that a reasonable worst case assessment is being undertaken and the likely significant environmental effects are identified and addressed.

2.15 The different testing scenarios are discussed in detail within each technical chapter (**ES Volume 1, Chapters: 6 to 13** and in **ES Volume 2, Townscape, Visual Impact and Heritage Assessment)** and are summarised below and presented in Table 2.1.

'Main' Assessment Scenarios

2.16 In general, the following five main scenarios (Table 2.1) have been considered within this ES which have been specifically chosen to ensure a reasonable worst-case scenario has been tested for each technical assessment, further detail is provided in the technical chapters as relevant **(ES Volume 1, Chapters: 6 – 13, and ES Volume 2, Townscape, Visual Impact and Heritage Assessment).**

Table 2.1 Key Technical Assessment Scenarios

	Scenario 1 – Max. Development Parameters	Scenario 2 – Max. Population Generating Scenario	Scenario 3 - Max. Transport Generating Scenario	Scenario 4 – Enabling and Construction	Scenario 5 - Indicative Scheme
Socio Economics		X		X	X
Transport and Accessibility			X	X	X*
Noise and Vibration		X (along with the Indicative Scheme used for Site Suitability)	X	X	X*
Air Quality		X (along with the Indicative Scheme used for Site Suitability)	X	X	X*
Greenhouse Gas Assessment			X	X	X
Daylight, Sunlight and Overshadowing (Solar Glare & Light Pollution)	X			X	X*
Wind Microclimate	X			X	X
Water Resources	X			X	X*
Townscape, Visual Impact and Built Heritage Assessment	X			X	X*

** Assessed but no effect scale or significance applied*

Scenario 1 - The Maximum Development Parameters

2.17 This scenario represents the maximum scale / height and maximum layout parameters that the Proposed Development could be built out to, and largely relates to the massing based EIA studies (i.e. in **ES Volume 2, Townscape, Visual Impact and Heritage Assessment**, and **ES Volume 1, Chapter 11: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution** and **Chapter 12: Wind Microclimate**). The maximum development parameters comprise the outer most, maximum dimensions for every Development Zone on the Site and therefore, represents a developable envelope that could never be built out to its full volume due to various constraints outlined within the Control Documents, which are not taken into account for this scenario. This scenario accords with the 'Rochdale Envelope'[5] approach.

Scenario 2 - The Maximum Population Generating Scheme

2.18 This scenario uses the maximum floor areas of the most population generating land uses proposed, taking into account the floorspace limits within the Development Specification (so that this scenario does not exceed maximum permissible floor areas for each land use being sought for approval). Under this scenario, the maximum amount of residential use is defined. This scenario is informed by the Land Use Parameter Plans, which identify the locations of potential residential uses.

2.19 Where technical assessments require (e.g. socio economics and traffic trip generation calculations), other non-residential uses and associated floorspace allowances are then included, to ensure that the scenario is complete in terms of the maximum floorspace permissible for the total development area as set out in the Development Specification. In addition, where technical assessments require, a relevant unit mix and amount of affordable housing to generate worst case effects has been defined and applied, as set out in **ES Volume 1, Chapter 4: Proposed Development**.

2.20 This scenario brings forward the largest population and in particular child yield which is important for assessing playspace requirements, and brings forward the most residential floor space and considers all locations where residential uses could come forward which is important for site suitability noise and air quality assessments. This scenario is applied as relevant in **ES Volume 1, Chapter 6: Socio Economics**; **Chapter 8: Noise and Vibration**; and **Chapter 9: Air Quality.**

Scenario 3 - The Maximum Transport Generating Scheme

2.21 This scenario defines the maximum transport trip generating scheme to allow an assessment of the reasonable worst-case effects on public transport, pedestrians and road traffic. This scenario comprises of the maximum amount of office and retail uses, with the rest of the permissible total floorspace as set out within the Development Specification allocated to serviced apartments. This scenario is applied as relevant in **ES Volume 1, Chapter 7: Transport and Accessibility**; **Chapter 8: Noise and Vibration**; and **Chapter 9: Air Quality.**

Scenario 4 - Enabling and Construction

2.22 This scenario sets out for the Indicative Scheme the anticipated programme of works, a description of the expected works and associated key activities for the enabling and construction works. All technical assessments assess the likely enabling and construction works, either quantitatively or qualitatively.

2.23 The construction information that forms the basis of the enabling and construction assessments is based on the Indicative Scheme which has been specifically developed to present an option which optimises the principles of the development (i.e. maximum floorspace[6] within the permissible heights and massing parameters) within the limits of the OPA's Control Documents. As such it reflects a reasonable worse case assessment and allows for appropriate assessment of the enabling and construction works within relevant technical chapters. Reasonable assumptions on the likely enabling and construction works (including a construction programme and associated phasing plan) required for the Proposed Development have been based on the Indicative Scheme and the information presented within the Control Documents, using professional judgement and industry experience of the Applicant's construction team. Further details to this methodology are presented and discussed within **ES Volume 1, Chapter 5: Enabling and Construction Works**.

[5] https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf

[6] *The total floorspace proposed is within 100 m² Gross Internal Area (GIA) of the maximum permissible floorspace (355,000 m² GIA) set out with the Development Specification. This 100 m² difference would not materially alter the information presented within this ES*

Scenario 5 - Indicative Scheme

2.24 The Indicative Scheme has been created to represent and show one possible way the Proposed Development could be interpreted/achieved and developed in accordance with the principles set out within the Control Documents, it is not a design template, nor is it being submitted for planning approval. The Indicative Scheme provides an understanding of a more proportionate and realistic impact of the Proposed Development on the environment, in comparison to the reasonable worst case scenarios tested for the flexible OPA in the EIA. The Indicative Scheme is presented within the Design and Access Statement (DAS) and details are provided within **ES Volume 1, Chapter 4: Proposed Development**.

2.25 An assessment of the Indicative Scheme is not required with respect to the EIA Regulations, given it only shows one way in which the Proposed Development could come forward under the permission that is being sought. Therefore, the ES does not assign a nature and scale to the likely effects associated with the Indicative Scheme, or determine whether the effects are significant. Instead, for each technical topic, the ES provides a qualitative narrative of the possible differences or similarities between the likely significant effects of the Proposed Development sought for approval under the OPA (based on the reasonable worst case assessment scenarios) and the Indicative Scheme. For some technical topics, this is supported by quantitative analysis / modelling (e.g. daylight/sunlight and townscape), for additional robustness.

2.26 The exception to this relates to the following technical topics which have used the Indicative Scheme as part of their assessments:

- The Wind Microclimate assessment (which is required to assess future expected uses throughout the Proposed Development and therefore requires information specific to the Indicative Scheme as the OPA doesn't include this level of detail);
- Socio-economics assessment (where the assessment scenarios to develop the worst-case assessment presents two very different types of use for the Site[7] and therefore the Indicative Scheme is presented throughout the ES chapter to outline a proportionate scenario alongside mitigation measures which provides a more realistic assessment of the impact of the Proposed Development on socio economic receptors); and
- Water Resources and Flood Risk assessment (the assessments relating to likely requirements for potable water and foul water connections are based on the volumes used for consultation with Thames Water Utilities Limited (TWUL), which needed to be based on the level of detail used within the Indicative Scheme).

Additional Assessment Scenarios

2.27 In addition to the five aforementioned 'Main Assessment Scenarios', other subsidiary scenarios ('Additional Assessment Scenarios') have been assessed as appropriate throughout the EIA in order to ensure that the likely significant effects of the Proposed Development are fully identified. These include:

- Scenario 6 - Maximum Residential and Minimum Employment: This draws from Scenario 2 in order to also assess a scenario which generates the minimum amount of employment generating floorspace that could come forward. The 'least employment generating use' floorspaces are applied following the application of the maximum residential (i.e non-employment generating) floor space, according to the floorspace allowances set out in the Development Specification, to 'use up' the floorspace allowed within the total development area. This results in a scenario to generate the minimum employment floorspace, which generates the lowest level of employment, which is therefore considered the worst case scenario for assessment of employment generation. In addition, this results in the maximum population generating scheme. Further details to this methodology are presented and discussed further within **ES Volume 1, Chapter 6: Socio Economics**;
- Scenario 7 - Minimum Residential and Maximum Employment: This scenario applies the maximum floorspace for non-residential uses, according to the maximum figures set out in the Development Specification. This results in a scenario which has the fewest number of residential uses (i.e zero) which is considered a worst-case scenario for the assessment of housing provision. Due to the overall quantum of floorspace and maximum non-residential uses, this scenario does not propose any residential elements and allows for the maximum amount employment generating uses. Further details to this methodology are presented and discussed further within **ES Volume 1, Chapter 6: Socio Economics**; and
- Scenario 8 – Maximum Parameters and Design Guidelines: This scenario comprises the maximum parameters of the Parameter Plans, but also taking into account the Design Guidelines as a whole, as well as the site-wide maximum permissible floorspace set out in the Development Specification. This scenario therefore takes into account the controls set out within the Design Guidelines and Development Specification which limit the development of the maximum parameters, and provides the most realistic reasonable worst case massing scenario for townscape and heritage assessment. This scenario forms the main basis of assessment of the likely significant effects for assessments in **ES Volume 2, Townscape, Visual Impact and Heritage Assessment.**

LISTED BUILDING CONSENT

2.28 The LBC involves the stabilisation of the listed quay wall and associated/remedial works as well as demolition/removal of the false quay in connection with the erection of the OPP. The Archaeological Desk Based Assessment (DBA) considers these proposals. The Archaeological DBA is a standalone document that has been submitted in support of the OPA and LBC.

[7] These worst-case scenarios test the maximum parameters of the various uses applied for, taking into account the different potential effects they could have in socio economic terms. One potential scenario would be to deliver only commercial floorspace, that would accommodate a large number of jobs, but have no impact on some types of social infrastructure such as schools and playspace. Whereas the maximum population generating scenario would have a different set of potential effects upon socio economic receptors and require different mitigation measures. This results in a wide range of outputs between the two scenarios.

EIA GUIDANCE AND PLANNING POLICY

EIA Guidance

2.29 The EIA has been prepared in accordance with applicable legislation, guidance, and case law for the preparation of such documents. Specifically, this ES has been undertaken in accordance with the IEMA Quality Mark indicator checklist and with due consideration to the following:

- At a European level, reference has been made to the European Commission's (EC) various EIA guidance documents available here: *http://ec.europa.eu/environment/eia/eia-support.htm;*
- At a domestic level, reference has been made to the Ministry of Housing for Communities and Local Government's overarching Planning Practice Guidance[8];
- In addition, the Department for Transport 'Design Manual for Roads and Bridges Volume 11: Environmental Assessment[9]' has been referred to as applicable;
- In relation to publications from professional bodies, reference has been made to the Institute of Environmental Management and Assessment (IEMA) publications as these include best practice/suggested improvements to the EIA process. This includes:
  - IEMA ES Review Criteria (COM3-6)[10];
  - IEMA 'Guidelines for Environmental Impact Assessment' (2004)[11];
  - IEMA 'Special Report into the State Environmental Impact Assessment Practice in the UK' (2011)[12];
  - IEMA 'Shaping Quality Development' (2015)[13];
  - IEMA 'Delivering Quality Development' (2016)[14]; and
  - IEMA 'Delivering Proportionate EIA' (2017)[15].
- Whilst primarily written for major infrastructure projects, reference is also made to guidance/advice notes published by the Planning Inspectorate in relation to National Infrastructure Planning[16] where appropriate, as these can include relevant/helpful information, particularly in relation to the assessment of an OPA.

Planning Policy

2.30 The EIA has considered relevant national, regional and local planning policy and guidance as summarised below.

National Planning Policy and Guidance

2.31 The ES has regard to the National Planning Policy Framework (NPPF)[17]. The NPPF sets out the Government's economic, environmental and social planning policies for England. The policies contained within the NPPF articulate the Government's vision of sustainable development, which are intended to be interpreted at a local level, to meet the requirements of local aspirations.

2.32 The NPPF has been considered where relevant to the EIA, specifically to the scope, methodology and assessment of effects for the EIA technical topics.

2.33 The ES also refers to the National Planning Practice Guidance (PPG)[18], which is an online resource. The PPG aims to make planning guidance more accessible, and to ensure that the guidance is kept up to date.

Strategic Planning Policy and Guidance

2.34 The ES has regard to the following key regional strategic planning documents. Any additional regional planning policy and guidance documents considered relevant to the technical assessments which are covered by the EIA are also considered:

- The London Plan: The Spatial Development Strategy for Greater London Consolidated with Alterations Since 2011 (March 2016)[19] – hereafter referred to as 'the London Plan';
- Intend to Publish London Plan 2019 (December 2019)[20] - A Draft new London Plan was published for public consultation in 2017. Following an Examination in Public in 2019 and the receipt of the official Panel Report, the Mayor issued an Intend to Publish London Plan in December 2019 , In March 2020 the Secretary of State (SoS) for Housing, Communities & Local Government issued Holding Directions on the publication of the Draft London Plan. The Mayor is currently reviewing the Draft London Plan text with the SoS and intends to publish a final London Plan later in 2020;
- Supplementary Planning Guidance (SPG) (i.e. further guidance on policies in the London Plan); and
- Isle of Dogs and South Poplar Opportunity Area Framework[21]

Local Planning Policy

2.35 As relevant to the EIA technical topic scope, methodology or assessment of effects, the ES has regard to key local planning policy and guidance documents. The following local planning policy documents are relevant to the Site:

- LBTH's Local Plan 2031[22] (adopted in January 2020) - The Local Plan sets out how the borough of Tower Hamlets will grow and develop over the next 15 years, and outlines how and where homes, jobs, services and infrastructure will be delivered to meet future needs of the borough. The Site is identified as a Site Allocation (4.9 – North Quay). The land use requirements within the North Quay Site Allocation are stated as Employment (Preferred Office Location (Secondary)) with ancillary supporting uses such as gyms, hotels, restaurants and retail and Housing;
- The Adopted and Emerging Planning Policy Designations affecting the Site are as follows:

[8] *http://www.gove.uk/guidance/environmental-impact-assessment*
[9] *Department for Transport, 2008. Design Manual for Roads and Bridges Volume 11: Environmental Assessment.*
[10] *Institute of Environmental Management and Assessment, undated; EIA Quality Mark – ES Review Criteria COM 3-6.*
[11] *Institute of Environmental Management and Assessment, 2004, Guidelines for Environmental Impact Assessment.*
[12] *Institute of Environmental Management and Assessment, 2011. The State of Environmental Impact Assessment Practice in the UK.*
[13] *Institute of Environmental Management and Assessment, November 2015. Shaping Quality Development.*
[14] *Institute of Environmental Management and Assessment, 2016; Delivering Quality Development.*
[15] *Institute of Environmental Management and Assessment, 2017; Delivering Proportionate EIA.*
[16] *https://infrastructure.planninginspectorate.gov.uk/*
[17] *DCLG, 2018; 'National Planning Policy Framework.'*
[18] *https://www.gov.uk/government/collections/planning-practice-guidance*
[19] *Greater London Authority (GLA), (2016); The London Plan: The Spatial Development Strategy for Greater London Consolidated with Alterations Since 2011.*
[20] *GLA, (2019); Draft London Plan, Intend to Publish. GLA*
[21] Greater London Authority. 2019. Isle of Dogs and South Poplar Opportunity Area Framework. GLA.
[22] *LBTH (2020) Tower Hamlets Local Plan 2031: Managing Growth and Sharing Benefits*

Local Plan

- Site Allocation: North Quay (4.9);
- Preferred Office Location: Canary Wharf Secondary;
- Tall Building Zone: Canary Wharf Cluster;
- Strategically Important Skyline: Canary Wharf Area;
- Tower Hamlets Activity Area: Isle of Dogs Activity Area;
- Statutory Listed Building: Quay Walls, Copings and Buttresses;
- Flood Risk Area (Flood Zones 2 and 3);
- Adjacent to Site of Importance for Nature Conservation;
- Green Grid Buffer Zone;
- New Green Grid;
- Archaeological Priority Area: Isle of Dogs;
- Conservation Area: West India Dock;
- London Cycle Network: Tower Hamlets;
- Area of Deficiency of Access to Nature: Millwall (Tower Hamlets);

London Plan

- Isle of Dogs and South Poplar Opportunity Area;
- Major Town Centre;
- Central Activities Zone (CAZ) for offices;

Draft London Plan

- Isle of Dogs and South Poplar Opportunity Area;
- Metropolitan Centre: Canary Wharf; and
- CAZ Satellite - Northern Isle of Dogs.

2.36 The Site is also adjacent to the Local Plan Site Allocation 15 – Billingsgate Market, which is allocated for employment and housing uses.

2.37 Any additional planning policy and guidance documents considered relevant to the technical assessments which are covered by the EIA are also considered; these are identified in the relevant sections of this ES (**ES Volume 1, Chapters 6 to 13** *and* **ES Volumes 2 and 3**).

2.38 In addition, where relevant to the assessment, the ES also presents a summary of any pertinent recognised industry guidance documents.

EIA SCOPING AND CONSULTATION

2.39 Consultation is an ongoing process and the results have informed the scope, parameters and design of the Proposed Development. **ES Volume 1, Chapter 3: Alternatives and Design Evolution** describes the design evolution of the Proposed Development, which have in part, been influenced by consultation with statutory bodies and interested parties. Consultation has fed into and influenced the EIA on the scope and methodology and responses to consultation on environmental matters. A consultation summary is also provided in **ES Volume 1, Chapter 3: Alternatives and Design Evolution.**

2.40 The OPA is accompanied by a Planning Statement, Statement of Community Involvement and a DAS which together summarise the wider consultation that has been undertaken with various consultees throughout the pre-application process.

EIA Scoping

2.41 Scoping forms one of the first stages of the EIA process and it is through scoping that the LBTH (as the local planning authority (LPA)) and other key statutory and non-statutory consultees are consulted on the environmental topics that should be included in the scope of the EIA. Regulation 18(4) of the EIA Regulations require the ES to be based on the most recent Scoping Opinion, on which this ES is based.

2.42 The process of EIA scoping is important to the development of a comprehensive and balanced ES. Views of the LBTH and consultees have helped to identify specific issues that require further investigation as part of the EIA process.

2.43 The main purposes of the EIA scoping process include:

- Definition of the approach to the EIA;
- Identification of any available existing baseline data and appropriate baseline surveys to be undertaken;
- Identification of sensitive receptors;
- Identification of potential environmental considerations and potential environmental effects;
- Identification of the topics to be included within the scope of the EIA;
- Identification of any topics that can be scoped out of the EIA (i.e. excluded), with justification provided as to why likely significant residual environmental effects are not anticipated;
- Definition of the methodology for the assessment of the likely significant environmental effects; and
- Identification of other development schemes to be considered within a cumulative effects assessment.

2.44 A Scoping Opinion Request (hereafter referred to as the 'Scoping Report') was submitted by the Applicant on 13th December 2019 to request a Scoping Opinion from the LBTH and statutory consultees. The Scoping Report is presented in **ES Volume 3, Appendix: Introduction and EIA Methodology – Annex 2.** The Scoping Report sets out a high level description of the emerging Proposed Development at the time of writing and the potential key environmental impacts and likely significant effects to be considered as part of the EIA. The Scoping Report includes the proposed approach that would be adopted for the EIA including the proposed scope and assessment methodology to predict the nature and scale of effects and to assess the significance in each case.

2.45 A Scoping Opinion was received from the LBTH (hereafter referred to as the 'LBTH Scoping Opinion') on 7th February 2020 which is provided in **ES Volume 3, Appendix: Introduction and EIA Methodology – Annex 3**.

2.46 An initial response to the LBTH Scoping Opinion was prepared by Trium on behalf of the Applicant and sent to the LBTH on the 18th February 2020 clarifying some of the EIA methodology queries. As part of the initial response, a meeting was requested to discuss and agree the scope of the ES with the LBTH further.

2.47 The Applicant's detailed response to the Scoping Opinion was sent to the LBTH on 3rd March 2020, prior to the meeting (which supersedes the initial response). The Applicant's detailed response to the Scoping Opinion is provided in **ES Volume 3, Appendix: Introduction and EIA Methodology - Annex 4.**

2.48 A meeting was held on 6th March 2020 with the LBTH internal officers and their EIA Consultant, Temple Group, to discuss the Applicant's detailed response to the Scoping Opinion. Attendees to this meeting were: on the LBTH side, the Area Planning Manager, Health Impact Assessment Officer, Daylight, Sunlight and Overshadowing Officer, Design Officer, Ecology Officer and a Technical Director from Temple Group; and on the Applicant side, representatives from Trium (EIA consultant), Quod (Planning and Socio Economic and Heath Impact Assessment Consultants), Peter Stewart Consultancy (Townscape and Heritage Consultants) and GIA (Daylight, Sunlight and Overshadowing Consultants). The scope of works for the EIA was principally agreed in this meeting and through the further email correspondence that was had with relevant LBTH officers (as presented within **ES Volume 3, Appendix: Introduction and EIA Methodology - Annex 4).**

2.49 In addition to the **ES Volume 3, Appendix: Introduction and EIA Methodology - Annex 4,** a summary of the key scoping consultation points have been presented within the introductory table of each technical chapter **ES Volume 1, Chapters 6 – 13.**

2.50 The EIA Scoping process, outlined above, determined the scope of the EIA, and the environmental technical topics which are considered unlikely to give rise to significant environmental effects and, therefore, did not need to be assessed further as part of this EIA. Full justification for scoping these technical topics out of the EIA is outlined within the Scoping Report and subsequent Scoping correspondence with the LBTH, which can be found within **ES Volume 3, Appendix: Introduction and EIA Methodology – Annex 4**.

'Scoped-Out' Disciplines

2.51 The Scoping Report identified the technical topics that were proposed to be scoped out of this ES, which were agreed with the LBTH as part of the extensive scoping exercise. Justification for 'scoping out' these topics, as well as the LBTH's agreement, can be viewed in detail in **ES Volume 3, Appendix, Introduction and EIA Methodology – Annex 2 and Annex 4.** The topics 'scoped out' of the EIA are:

- Archaeology (Archaeology DBA);
- Geoenvironmental (Ground Conditions, Groundwater and Land Take and Soils) (Geoenvironmental Preliminary Risk Assessment);
- Aviation (Aviation Safeguarding Assessment);
- Ecology (Ecological Impact Assessment);
- Waste (Site Waste Management Plan); and
- Electronic Interference (Radio and TV Interference Assessment).

2.52 Although the above topics have been agreed to be scoped out of the ES, stand-alone reports have been submitted in support of the OPA and LBC, as listed above.

2.53 Any necessary mitigation measures relied upon to scope these topics out of the EIA are included in **ES Volume 1, Chapter 16, Mitigation and Monitoring Schedule,** measures should be secured through a condition by the LBTH or through a section 106 legal agreement ('S106')**.**

'Scoped-In' Disciplines

2.54 The potentially significant environmental issues that were identified during the EIA Scoping process with the LBTH and that have been addressed within this ES are listed below:

- Enabling and Construction Works (**ES Volume 1, Chapter 5**);
- Socio Economics (**ES Volume 1, Chapter 6**);
- Transport and Accessibility (**ES Volume 1, Chapter 7**);
- Noise and Vibration (**ES Volume 1, Chapter 8**);
- Air Quality (**ES Volume 1, Chapter 9**);
- Greenhouse Gas Emissions (**ES Volume 1, Chapter 10**)
- Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution (**ES Volume 1, Chapter 11**);
- Wind Microclimate (**ES Volume 1, Chapter 12**);
- Water Resources and Flood Risk (**ES Volume 1, Chapter 13**);
- Townscape, Visual Impact and Built Heritage Assessment (**ES Volume 2**);
- Project Vulnerability, Major Accidents and Natural Disasters (as discussed in the Scoping Report, the only aspects of project vulnerability, major accidents and natural disasters relevant to this project are solar glare and strong winds, the potential for strong winds is considered within **ES Volume 1, Chapter 12: Wind Microclimate** and any potential for solar glare is considered within **ES Volume 1, Chapter 11: Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution**);
- Climate Change - In accordance with Schedule 4, paragraph 5(f) of the EIA Regulations, to consider *"the impact of the project on climate"* and *"the vulnerability of the project to climate change"*, consideration is given within this ES to greenhouse gases that would be generated by the Proposed Development (in **ES Volume 1, Chapter 10**: **Greenhouse Gas Emissions**), as well as the Proposed Development's resilience to climate change (addressed across the ES as a whole, and discussed in more detail below); and
- Health **-** The EIA Regulations require the consideration of the potential effects on human and population health where significant effects are likely to occur. Health has been specifically considered with the Heath Impact Assessment (HIA) which forms an Annex to **ES Volume 1, Chapter 6: Socio Economics**, and is summarised within the chapter. In addition, health has been considered within technical chapters of ES Volume 1 as relevant, such as site suitability in terms of air quality and noise.

Effects of Climate Change on the Proposed Development

2.55 The EIA Directive 2014[23] sets out the rationale for incorporating climate change into the EIA process. It states: "Climate change will continue to cause damage to the environment and compromise economic development. In this regard, it is appropriate to assess the impact of projects on climate (for example greenhouse gas emissions) and their vulnerability to climate change."

2.56 The requirements of the EIA Directive 2014 have been adopted within UK EIA Regulations 2017[24] and require that the assessment provides: "*A description of the likely significant effects of the development on the environment resulting from, inter alia:…(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change*".

2.57 The approach adopted to assessing the potential impact of climate change on the Proposed Development has been undertaken in line with the IEMA guidance 'Climate Change Resilience and Adaption'[25] (Trium's note on this is included in **ES Volume 3, Appendix: Introduction and EIA Methodology – Annex 6**), which presents a framework for the consideration of climate change resilience and adaption in the EIA process.

2.58 Consistent with the guidance, a future climate scenario has been developed through the use of the future climate projections published by the Met Office (through the UK Climate Projections (UKCP18) website[26]). The results include projections for variables including annual mean temperatures, and annual changes in summer and winter precipitation.

2.59 Each technical chapter of this ES (**Volume 1**) and the **Townscape, Visual Impact and Heritage Assessmen**t (ES Volume 2) has considered whether the climate change variables described within **Appendix: Introduction and EIA Methodology – Annex 6** could affect the impact assessments undertaken. As relevant, they have assessed the potential impacts and associated effects of climate change on the Proposed Development. This has been quantified where possible and, where not possible, a qualitative review is presented. Where an assessment is not expected to be affected by the climate change variables, this is stated within the relevant ES chapter / Volume.

2.60 The adaptation and resilience measures proposed as part of the Proposed Development have been summarised within **ES Volume 1, Chapter 4: Proposed Development** and where relevant within ES chapters (i.e **ES Volume 1, Chapter 13: Water Resources and Flood Risk**).

EIA ASSESSMENT METHODOLOGY

2.61 The method behind the EIA process generally considers the existing conditions of the area into which the Proposed Development is being introduced (the ***baseline***), providing a ***future baseline*** context for assessments where relevant, and makes reasonable predictions of the likely change (the ***impact*** – in terms of magnitude) that may occur, during both its construction and when the development is completed and operating as proposed. The predicted impact is considered in terms of key environmental and socio economic aspects (***receptors***) found within the surrounding area, and based on their sensitivity to change, the scale of the resulting change experienced by the receptor (the ***effect***) is then determined along with a statement on whether the effect is significant or not. Any mitigation measures required to reduce or eliminate adverse effects are then considered and assessed, with the resulting residual effect scale being determined as significant or not. Effects resulting from a combination of the Proposed Development and other surrounding schemes that are existing, approved, subject to a planning application, or under construction (***cumulative schemes***) are also assessed. All the likely effects of the Proposed Development are reported (within an ***environmental statement***) and the likely significant effects are specifically highlighted.

Baseline Conditions

2.62 The purpose of the EIA is to predict how environmental conditions may change as a result of the Proposed Development. The assessment of the nature and scale of a predicted change is undertaken against a reference condition, known as the baseline. In most cases, the baseline represents the environmental condition of the Site and the surrounding area at the time of the assessment (as described in **ES Volume 1, Chapter 1: Introduction** and each technical chapter of the ES). However, the Transport and Accessibility, Air Quality and Noise and Vibration assessments include a future baseline i.e. the projected future environmental condition (e.g. future road traffic flows) at 2029, which is the projected year of completion of the Proposed Development.

2.63 Baseline assessments will utilise any existing and available information, as well as new information either collected through baseline surveys undertaken during the course of the EIA process or additional information provided as part of the EIA Scoping and the consultation process. This information has been used to present within the ES (within the individual technical chapters) an up to date description of the current baseline conditions of the Site and surrounding area.

Evolution of the Baseline

2.64 In accordance with the requirements of the EIA Regulations, consideration is given as to how the existing baseline conditions may evolve in the future, in the absence of the Proposed Development. The EIA Regulations state that (Schedule 4(3)):

> "A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge".

2.65 This requirement is presented within each of the individual technical ES Chapters (**ES Volume 1, Chapters: 6 to 13, and ES Volume 2, Townscape, Visual Impact and Heritage Assessment**) under the heading 'Evolution of the Baseline Scenario'. The evolved baseline is a baseline condition at an indeterminate point in the future, for a scenario which assumes all of the identified Cumulative Schemes are built in the surrounding environment and that the surrounding environment, including the Site, has naturally evolved in the absence of the Proposed Development being implemented. In most cases this will be a qualitative approach (professional opinion), but in some instances may be quantitative.

[23] *Directive 2014/52/EU of the European Parliament and of the Council on the assessment of effects of certain public and private projects on the environment.*
[24] *See https://www.gov.uk/guidance/environmental-impact-assessment#Preparing-an-Environmental-Statement1.*
[25] *IEMA, (2015); Climate Change Resilience and Adaptation.*
[26] *https://www.metoffice.gov.uk/binaries/content/assets/mohippo/pdf/ukcp18/ukcp18-guidance-rcp.pdf*

2.66 The approach taken to providing an outline of the evolution of the baseline is described within each of the individual technical ES Chapters (**ES Volume 1, Chapters: 6 to 13**, and **ES Volume 2, Townscape, Visual Impact and Heritage Assessment**).

Potentially Sensitive Receptors

2.67 The EIA process has included the identification and assessment of impacts to and effects on potentially sensitive receptors, which include those within the baseline conditions, and any new potential receptors introduced as part of the Proposed Development as listed below in Table 2.2.

2.68 Within each of the technical ES assessments (**ES Volume 1, Chapters: 6 to 13** and **ES Volume 2, Townscape, Visual Impact and Heritage Assessment**), a list of sensitive receptors (agreed with the LBTH and relevant consultees during the EIA Scoping Process) is presented which are considered to have the potential to be affected by the Proposed Development.

2.69 The receptors addressed within the technical ES Chapters have been identified from a review of the available information collected as part of the description of the surrounding environmental and context for each technical assessment, from historic and currently available information relating to the Site itself and through EIA Scoping Consultation. Potentially sensitive receptors have also been identified from a review of the description of the Proposed Development *(***ES Volume 1, Chapter 4: Proposed Development**) sought for approval and the potential impacts and resultant effects which may occur as a result of newly introduced receptors of the Proposed Development.

Table 2.2 Potentially Sensitive Receptors

Topic	Potentially Sensitive Receptor
Socio Economics	The construction industry and its employees Housing need within the borough The local economy and labour market i.e. local businesses and economically active residents Primary schools Secondary schools Primary Healthcare facilities Playspace Open Space The Proposed Development could also introduce new residents to the Site which will be sensitive to socio economic impacts
Transport and Accessibility	Vehicle drivers Public Transport users (rail, including Underground, DLR and forecast Elizabeth Line users) Pedestrians Cyclists Upper Bank Street / Aspen Way Junction Hertsmere Road / West India Dock Road Junction Aspen Way Footbridge
Noise and Vibration	Billingsgate Market Canary Wharf Marriott Hotel / 1 West India Quay 1 West India Quay (which is also representative of the Horizon (residential) Building) New City College Crossrail Place
Air Quality	Dingle Gardens residences Stoneyard Lane residences Dolphin Lane residences Simpson Road residences 5 Canada Square offices 8 Canada Square offices 25 North Colonnade offices 36 Dingle Gardens Billingsgate Market Residential property on Birchfield Street Residential property on Naval Row Residential properties on Blackwall Way Residential property in Roosevelt Tower Residential properties on Williamsberg Plaza Residential property on Grenade Street Horizon Building Canary Wharf Marriott Hotel / 1 West India Quay Residential property on Ming Street Residential property on Pennyfields New City College <u>Cumulative Receptors:</u> Residential property at 82 West India Dock Road Residential property in Blackwall Yard Development Residential property in Poplar Business Park Development 2 Trafalgar Way Infinity Towers <u>Introduced Receptors:</u> Delta Skate Park Building NQA1 Building NQA4 Dock Square Building NQA5 Quay Square Building NQB1 Building NQD1 Poplar Plaza Building NQD4
Greenhouse Gas Emissions	Greenhouse gases contribute towards climate change, which is a global-scale cumulative effect, but do not cause direct local or regional effects, therefore no specific receptor locations are assessed in the greenhouse gas assessment.

Topic	Potentially Sensitive Receptor
Daylight, Sunlight, Overshadowing, Solar Glare & Light Pollution	<u>Daylight and Sunlight Receptors</u> Cruse House 1-12 Dingle Gardens 13 to 53 Dingle Gardens 1 to 4 Dolphin Lane 5 to 17 (odds) Dolphin Lane 1 West India Quay Good Faith House Good Speed House Good Hope House Goodwill House Horizon Building 1-18 Lubbock House 1-12 Martindale House 32a-32b Ming St 32c-32d Ming St 38a Ming St 38c Ming St 40 Ming St 34a Ming St 34c Ming St 34e Ming St 36a Ming St 36c Ming St 2-30 Ming Street 2-24 Poplar High Street 26-36 Poplar High Street 40-50 Poplar High Street 54-64 Poplar High Street 74 Poplar High Street Port East Apartments 1-8 Stoneyard Lane 9-24 Stoneyard Lane Wigram House Willis House Winant House Little St Matthias Preschool New City College Vietnamese Pastoral Centre, 130 Poplar High Street Shah Jalal Mosque Poplar, 25 Hale Street
	<u>Overshadowing</u> Green spaces serving houses on Pennyfields Pennyfields Park Playground of Our Lady & St Joseph Primary School Play Area at Will Crooks Estate Park Area at The Workhouse Leisure Centre Sports Pitches at The Workhouse Leisure Centre Poplar Recreation Ground St Matthias Church Ground Little St Matthias Preschool outside space Public Bowling Green on Hale Street Public Park on Cottage Street 30-42 (even) Pennyfields 82-118 (even) Pennyfields 40-50 (even) Ming Street 32b Ming Street 32c Ming Street 34a Ming Street 34c Ming Street 34e Ming Street 36a Ming Street 36c Ming Street 38a Ming Street 38c Ming Street 13-20 Dingle Gardens 2-12 (even) Poplar High Street 1-3-5 Dingle Gardens 2-4-6 Dingle Gardens 8-10-12 Dingle Gardens 7-9-11 Dingle Gardens 26-30-34 Dingle Gardens 28-32-36 Dingle Gardens 42-46-50 Dingle Gardens 40-44-48 Dingle Gardens 54-58-62 Dingle Gardens 56-60-64 Dingle Gardens 2 Dolphin Lane 21-53 Dingle Gardens 1-17 (odd) Dolphin Lane Goodfaith House (four areas) Courtyard at Simpon's Road Goodhope House (two areas) Lubbock House 1-6 Martindale House Norwood House Little Matthias Preschool New City College

Topic	Potentially Sensitive Receptor
	<u>Solar Glare</u> 11 Viewpoints on: Aspen Way (A1261) DLR lines Upper Bank Street
	<u>Light Pollution</u> 1 West India Quay Millwall and West India Dock SINC Future Residential Receptors within the Site (NQA and NQD)
Wind Microclimate	Roads Thoroughfares Railway Station Platforms Ground Level Entrances Public Amenity Spaces Podium/Roof Top Terraces Pick-up/Drop-Off Points Bus Stop/Other Public Transport Infrastructure Cycle Lanes/Roadways Pedestrian Crossings - waiting Waterway Maintenance Areas Private Amenity Spaces
Townscape Character Areas	Townscape Character Area A: Canary Wharf Townscape Character Area B: Poplar Townscape Character Area C: Limehouse and Westferry Townscape Character Area D: Blackwall Townscape Character Area E: Coldharbour Riverscape
Views	Alexandra Palace (LVMF 1A. A) Parliament Hill (LVMF 2A.1) Waterloo Bridge (LVMF 15B.1) London Bridge (LVMF 11B.1) London Bridge (LVMF 11B.2) Greenwich Park: General Wolfe Statue (LVMF 5A.1) Royal Naval College The Queens Walk – west of City Hall Tower Bridge – South Bastion Stave Hill Wapping Walkway Narrow Street Limehouse Basin Ropemakers Field Salmon Lane/ Commercial Road Salmon Lane Mile End Park Southern End of Mile End Park Bartlett Park Commercial Road Junction with West India Dock Road/ East India Dock Road Church of St. Matthias Poplar Recreation Ground

Topic	Potentially Sensitive Receptor
	Trinity Gardens All Saints Churchyard Twelvetrees Crescent Greenwich Peninsula Nelson Dock Garford Street Hertsmere Road Cannon Workshops – Outside entrance North Quay, western end North Quay, southern side Poplar High Street Poplar Dock Backwall Basin Aspen Way – east of the Site Cordella Street Regents Canal / Ben Johnson Road Poplar High Street (central) Poplar High Street (east) Poplar High Street (west) Shirbutt Street / Hale Street Upper Bank Street Langdon Park Thames Barrier
Built Heritage	Maritime Greenwich WHS Tower of London WHS Listed buildings Conservation areas Locally listed buildings
Water Resources	TWUL Aspen Way Trunk Sewer The Docks Upper aquifer Lower aquifer TWUL primary supply pipeline from Aspen Way Existing local population and infrastructure affected by a change in flood risk Proposed Development and its occupants

Identification of Impacts, Effects and Effect Significance

Terminology and Definitions

Reference to 'Impact' and 'Effect'

2.70 It is noted that the terms 'impact' and 'effect' are distinctly different. Having gained an understanding of the likely impact it is then important to know whether the change in environmental or socio economic conditions results in a significant environmental effect.

2.71 The impacts of the Proposed Development may or may not result in significant effects on the environment, depending on the sensitivity of the receptor and possible other factors (such as duration). The assessment of the likely significant effects of the development is a requirement identified by Schedule 4 of the EIA Regulations.

Receptor Sensitivity and Magnitude of Impact

2.72 To achieve a consistent approach across the different technical disciplines addressed within **ES Volume 1, Chapters 6 to 13** and **ES Volume 2**, **Townscape, Visual Impact and Heritage Assessment,** the individual assessments broadly define the sensitivity of the receptors that could be affected by the Proposed Development and the magnitude of impact or change from the baseline conditions in order to derive the resultant effect. Where appropriate, technical specialists use their own approach or amended the approach stated below based on what is proportionate for their assessments.

2.73 Terminology to describe the sensitivity of receptors and magnitude of impact or change from the baseline conditions is broadly as follows – although the specific terminology used is set out in **ES Volume 1, Chapters: 6 to 13**:

- High;
- Medium;
- Low; or
- Negligible.

2.74 Where there is no impact or change, no assessment will be required due to there being no potential for significant effects.

2.75 **ES Volume 1, Chapters 6 to 13** and **ES Volume 2**, **Townscape, Visual Impact and Heritage Assessment** provide further detail on the definition of each of the above terms specific to the topic in question and also provide the criteria, including sources and justifications, for quantifying the different levels of receptor sensitivity and 'impact magnitude'. Where possible, this is based upon quantitative and accepted criteria (for example, national standards for air quality and noise), together with the use of value judgement and expert interpretation.

2.76 Alternatively, some technical assessment chapters differ in the terminology adopted to describe the magnitude of impact or change from the baseline conditions (due to industry standards or specific technical policy and guidance). Where this occurs, the alternative terminology adopted has been clearly set out within the individual ES chapter.

Likely Significant Effects

Identification of a Resultant Effect

2.77 The basis for determining the resultant scale of effect generally takes into account the sensitivity of the receptor and magnitude of impact or change from the baseline conditions.

2.78 A generic matrix that combines the sensitivity of the receptor and the magnitude of impact to identify the resultant scale of effect (in accordance with the EIA Regulations) is provided within Table 2.3 (though where this differs for a technical topic due to technical policy, guidance or professional judgment, this is clearly stated in the topic's methodology section of the chapter).

Table 2.3 Scale of Effects

Receptor Sensitivity	Magnitude of Impact			
	High	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

2.79 Table 2.4 provides the broad definition of the 'scale' of the resultant effect i.e. definitions of major, moderate, minor and negligible effects. The definitions in Table 2.4 are adjusted to suit the technical topic in question; where this is the case revised definitions of effect scale will be presented in **ES Volume 1, Chapters 6 to 13** and **ES Volume 2**, **Townscape, Visual Impact and Heritage Assessment, .**

2.80 Where there is 'No Impact' and therefore "No Effect" this will be stated.

Table 2.4 Broad Definitions of the Scale of the Resultant Effect

Type of Effect	Description
Major	These effects may represent key factors in the decision-making process. Major effects generally result from receptors of high sensitivity (such national importance or likely to be important considerations at a regional or district scale) and/or impacts of a high magnitude (such as the loss of large areas of land). Major effects can also result from receptors of medium sensitivity combined with an impact of a high magnitude, or receptors of high sensitivity combined with an impact of a medium magnitude.
Moderate	These effects, if adverse, are likely to be important at a local scale and on their own could have a material influence on decision-making. Moderate effects generally result from receptors of medium sensitivity combined with an impact of a medium magnitude. Moderate effects can also result from receptors of low sensitivity combined with an impact of a high magnitude, or receptors of high sensitivity combined with an impact of a low magnitude.
Minor	These effects may be raised as local issues and may be of relevance in the detailed design of the project, but are unlikely to be critical in the decision-making process. Minor effects generally result from receptors of medium sensitivity combined with an impact of a low magnitude, or receptors of low sensitivity combined with an impact of a medium magnitude.
Negligible	Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error, these effects are unlikely to influence decision making, irrespective of other effects. Negligible effects generally result from receptors of low sensitivity, combined with an impact of a low magnitude.

Effect Nature

2.81 The definitions of the 'nature' of the resultant minor, moderate or major effect i.e. definitions of adverse, beneficial, neutral effects, are outlined in Table 2.5.

Table 2.5 Definition of the Nature of the Resultant Effect

Nature of Effect	Description
Adverse	Detrimental or negative effects to an environmental / socio economic resource or receptor. The quality of the environment is diminished or harmed.
Beneficial	Advantageous or positive effect to an environmental / socio economic resource or receptor. The quality of the environment is enhanced.
Neutral	A neutral effect is one in which either there is no noticeable beneficial or adverse effect, or in which the effect is considered neither beneficial nor adverse overall, having made a 'net equation' judgment that takes into account both beneficial and adverse impacts.

Geographic Extent of Effect

2.82 The **ES (Volumes 1 and 2)** identifies the geographic extent of the identified effects. At a spatial level, 'site' or 'local' effects are those affecting the Site and neighbouring receptors, while effects upon receptors in the LBTH, beyond the vicinity of the Site and its neighbours are at a 'district / borough' level. Effects affecting Greater London are at a 'regional' level, whilst those which affect different parts of the country, or England, are considered being at a 'national' level.

Effect Duration

2.83 For the purposes of the ES, effects that are generated as a result of the construction works (i.e. those that last for this set period of time) are classed as 'temporary'; these may be further classified as either 'short term' or 'medium-term' effects depending on the duration of the construction works that generate the effect in question. Effects that result from the completed and operational Proposed Development are classed as 'permanent' or 'long-term' effects.

Direct and Indirect Effects

2.84 The ES identifies whether the effect is 'direct' (i.e. resulting without any intervening factors) or 'indirect' or 'secondary' (i.e. not directly caused or resulting from something else).

Mitigation Measures

2.85 Where adverse effects are identified, mitigation measures have been explored to ascertain whether the effect can be minimised or eliminated.

2.86 Where mitigation measures have been identified, these have been incorporated into the Proposed Development, for example either through the design (such as changes to Parameters Plans, specific codes added to the Design Guidelines and indicative landscaping refinements as detailed in **ES Volume 1, Chapter 3: Alternatives and Design Evolution**), or have been translated into construction commitments; or operational or managerial standards / procedures. Those measures not inherent in the design of the Proposed Development (i.e. submitted for approval as part of the planning application), will need to be secured through an appropriate means by the LBTH.

Effect Significance

2.87 Following identification of an effect and the implementation of mitigation measures, the residual effect's scale, nature, geographic extent and duration and whether the effects are direct or indirect, using the above summarised terminology, are summarised in a clear statement within **ES Volume 1 and ES Volume 2** and used to ascertain as to whether the residual effect is 'significant' or 'not significant'.

2.88 As a general rule, the following applies (though where this differs for a technical topic due to technical policy, guidance or professional judgment, this is clearly stated in the topic's methodology):

- **'**Moderate' or 'Major' effects are deemed to be 'significant';
- 'Minor' effects are considered to be 'not significant', although they may be a matter of local concern; and
- 'Negligible' effects are considered to be 'not significant' and not a matter of local concern.

2.89 Where mitigation measures are identified to either eliminate or reduce likely significant adverse effects, these have been incorporated into the ES, for example either as enabling and construction commitments or operational or managerial standards / procedures.

2.90 The ES then highlights the 'residual' likely significant effects (those effects which remain following the implementation of suitable mitigation measures) and classifies these in accordance with the terminology defined above.

2.91 Significant neutral environmental effects are only included where relevant within the Townscape and Built Heritage assessment as per the relevant guidance[27]. The methodology of the 'neutral' classification is clearly outlined in the methodology section of the assessment within **ES Volume 2, Townscape, Visual Impact and Heritage Assessment**.

Impact Assessment

2.92 Each of the technical topic areas that have the potential for significant effects assess the following:

1. The enabling and construction works associated with the Proposed Development;
2. The completed and operational Proposed Development; and
3. Cumulative Effects.

2.93 The enabling and construction works assessment is described above under the heading Scenario 4: Enabling and Construction, and different completed and operational assessments are described in the ''Main' Assessment Scenarios' (1,2,3,5) and the 'Additional Assessment Scenarios' headings above. The cumulative effects assessment is described below.

Cumulative Effects

2.94 Cumulative effects can occur as interactions between the effects associated with a number of projects in an area which may, on an individual basis be insignificant, but together (i.e. cumulatively), result in a significant effect. The EIA Regulations require that, in assessing the effects of a particular development proposal, consideration should also be given to the likely significant effects arising from the "*cumulation with other existing and/or approved projects*" (Schedule 4, 5(e)).

2.95 Cumulative effects arising from the Proposed Development in combination with other development schemes ('Cumulative Schemes') has been considered throughout the ES. The potential for cumulative effects arising during the construction works and once the Proposed Development is complete and operational is considered.

2.96 Each individual technical chapter of the ES presents an assessment of the cumulative effects of the Proposed Development coming forward in isolation alongside other surrounding Cumulative Schemes as agreed with the LBTH.

2.97 There are no legislative or policy requirements which set out how a cumulative impact assessment should be undertaken.

Cumulative Schemes

2.98 The Cumulative Schemes that are considered within the ES are typically be located within a 1km radius from the centre of the Site as this spatial extent is considered appropriate and good practice for determining cumulative effects in this locality. This catchment area has been set to provide a reasonable study area for the assessment of cumulative effects. It is acknowledged that for certain topics of the EIA (specifically townscape and visual), there is a need to consider more distant schemes within the cumulative effects assessment. This is appropriate, given the view locations associated with the townscape and visual impact assessment.

2.99 A list of cumulative schemes has been agreed with the LBTH and generally the Cumulative Schemes included within the cumulative effects assessment:

- Are located within a 1km radius from the center of the Site, as this spatial extent is considered appropriate for determining cumulative effects in this locality;
- Have full planning consent, a resolution to grant consent, or are applications that have been submitted but not yet determined;
- Produce an uplift of more than 10,000m^2 (Gross External Area (GEA) of mixed-use floorspace, or over 150 residential units; and
- Any office to residential conversions (granted under the General Permitted Development Order) giving rise to more than 150 residential units.

2.100 The criteria listed above has been set to allow all the schemes coming forward within the LBTH to be subject to an initial screening exercise to determine the schemes that, based on the scale of redevelopment (amount and mix of uses), could potentially have a cumulative effect with the Proposed Development and should be considered further within the cumulative effects assessment of the EIA.

2.101 By applying these parameters to all the schemes coming forward, the cumulative effects assessment of the EIA becomes more focused on the schemes which, based on the scale of redevelopment (amount and mix of uses) and location relevant to the Site, have more potential to interact in a cumulative manner. Each technical chapter of the ES is clear on the cumulative schemes that have been considered within the cumulative effects assessment of the topic in question, including a reasoning behind their inclusion. Where

[27] *Guidelines for Landscape and Visual Impact Assessment (GLVIA)*

cumulative schemes are 'screened out' of the cumulative effects assessment, the reasoning for doing so is presented.

2.102 In some instances, schemes that are under construction, where the construction works are significantly progressed or where early phases are occupied, are factored into the baseline conditions. If relevant, this is clearly set out within each individual topic's cumulative assessment methodology text.

2.103 For schemes where a Scoping Report application has been submitted but a planning application has not, the ES addresses these as far as is reasonably practicable, and the assessments are based on the information available within the public domain. Given the limited availability of information, a qualitative narrative is provided. Within the cumulative schemes list below, at the time of writing 2 Trafalgar Way has a detailed planning application consent which will be quantitatively assessed and a new Scoping Report application submitted which will be qualitatively considered. New City College (Poplar Campus) has a Scoping Report application submitted and therefore will only be assessed qualitatively.

2.104 The list of Cumulative Schemes (agreed with the LBTH during the EIA Scoping Process) which have been considered within the EIA are listed in Table 2.6 below.

Table 2.6 List of Cumulative Schemes

Cumulative Schemes	
1. 42-44 Thomas Road	15. Arrowhead Quay
2. 82 West India Dock Road	16. South Quay Plaza
3. Chrisp Street Market	17. South Quay Plaza 4
4. Blackwall Reach – Robin Hood Gardens Estate	18. Meridian Gate, 199- 207 Marsh Wall
5. Poplar Business Park	19. 54 Marsh Wall
6. 2 Trafalgar Way – Infinity Towers, Helix*	20. Jemstock 2, South Quay Square, 1 Marsh Wall
7. Blackwall Yard, Reuters Site	21. 50 Marsh Wall, 63-69 and 68-70 Manilla Street "Alpha Square"
8. Hertsmere House	22. 2 Millharbour
9. 1 Park Place	23. 3 Millharbour & 6-8 South Quay (Millharbour Village)
10. Riverside South	24. 49-59 Millharbour, 2-4 Muirfield Crescent And 23-39 Pepper Street, London, E14
11. Newfoundland	25. 225 Marsh Wall
12. 10 Bank Street	26. Quay House, Admirals Way, London, E14 3AG
13. Wood Wharf	27. Skylines Village, Limeharbour, London
14. The City Pride	28. New City College Poplar Campus*

2.105 A full list of cumulative schemes with the description of development, status and planning reference is provided within **ES Volume 3, Appendix Introduction and EIA Methodology – Annex 5,** along with a map locating each scheme in proximity to the Proposed Development. The consideration of "Inter Cumulative Effects" is provided in each of the technical chapters of the ES (**ES Volume 1, Chapters 6 to 13).**

Effect Interactions

2.106 Effect interactions occur as interactions between effects associated with just one project, i.e. the combination of individual effects arising as a result of the Proposed Development, for example effects in relation to noise, airborne dust or traffic on a single receptor. Effect Interactions arising from the Proposed Development itself on surrounding sensitive receptors during the construction works and also once the Proposed Development is completed are considered within **ES Volume 1, Chapter 14: Effects Interactions**.

2.107 Dependent on the relevant sensitive receptors, the assessment focuses either on key individual receptors or on groups considered to be most sensitive to potential effect interactions. The potential interaction of residual effects that are of minor, moderate or major scale (see section 'Identification of Impacts, Effects and Effect Significance' above for further details), are considered within this assessment. Residual effects which are negligible, are excluded from this assessment as by virtue of their definition, they are considered to be imperceptible, therefore the combination of any imperceptible effects should remain as being imperceptible.

2.108 There is no established methodology for assessing the impact of effect interactions on a particular receptor. Therefore, a scale of effect is not applied to the combination of individual effects (such as Negligible, Minor, Moderate or Major), However, the European Commission has produced guidelines to assist EIA practitioners in developing an approach which is appropriate to a project. These guidelines[28] have been used to develop an approach which uses the defined residual effects of the Proposed Development (as presented within the technical chapters of the ES) to determine the potential for effect interactions. Therefore, relevant effect interactions are discussed and where possible, professional judgement has been applied to determine whether the effect interaction is considered significant.

2.109 Further detail on the methodology associated with this assessment, and the consideration of effect interactions are presented within the ES in a separate chapter titled 'Effect Interactions' (**ES Volume 1, Chapter 14: Effect Interactions**)

STRUCTURE OF TECHNICAL ASSESSMENTS

2.110 This ES reports on the potential (before mitigation) and residual (after mitigation) environmental effects of the Proposed Development during enabling and construction works and on subsequent completion and operation. The ES also concludes with a summary of the likely significant beneficial, neutral and adverse

[28] *European Community (1999); Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions.*

environmental effects of the Proposed Development (**ES Volume 1, Chapter 15: Likely Significant Effects and Conclusions**).

2.111 Each of the environmental topics considered in the EIA has been assigned a separate chapter in **ES Volume 1, Chapter 6 to 13**. Within each of the ES Volume 1 technical chapters the assessment is presented and reported in the following format:

- An Introductory Table – setting out the author of the technical topic assessment, identification of relevant appendices, key topic related considerations and consultation as part of the EIA Scoping Report/Opinion;
- Assessment Methodology – an explanation of the approach to defining the baseline conditions, assessment scenarios and evolved baseline conditions, undertaking the impact assessment (construction and operation, and any key assumptions made) and the definitions of the nature and scale of effect and what effects are deemed to be significant;
- Baseline Conditions – a description of the baseline conditions of the Site and surrounding area (as relevant to the technical topic in question).
- Receptors and Receptor Sensitivity – identification of the existing and proposed (new) receptors on the Site and in the surrounding area that may be affected by the Proposed Development and identification of their sensitivity;
- Potential Effects – an assessment of the likely significant effects of the Proposed Development during construction and on completion, and an evaluation of their nature and scale against defined criteria without the implementation of mitigation;
- Mitigation Measures, Monitoring and Residual Effects – a description of the mitigation measures that are being committed to, including measures to be included in the Design Guidelines and any supplementary assessments that would need to be completed upon submission of the subsequent RMAs, and a summary of the residual effects of the Proposed Development;
- Climate Change – as relevant, an assessment of the likely significant effects of the Proposed Development when considering and in the context of potential for future climate change and taking into consideration the vulnerability of sensitive receptors to such change;
- Assessment of Future Environment – an assessment of the likely significant effects of the Proposed Development in relation to both an evolution of the baseline conditions and any 'in combination' effects with the agreed cumulative schemes;
- Likely Significant Effects – a short statement confirming which residual effects are considered to be 'significant'; and
- Comparison Against the Indicative Scheme – a comparison of the main assessment against the Indicative Scheme which represents one possible way the Proposed Development could be interpreted/achieved and developed in accordance with the Control Documents.

ASSUMPTIONS AND LIMITATIONS

2.112 The principal assumptions that have been made, and any limitations that have been identified, in undertaking the EIA are set out below. Assumptions specifically relevant to each technical topic have been set out in each technical chapter of the ES:

- Baseline conditions have been established from a variety of sources, including historical data and are accurate at the time of writing;
- It is assumed that information received from third parties is accurate, complete and up to date;
- The assessments contained within each of the **ES Volume 1, Chapters 6 to 13** and **ES Volume 2**, **Townscape, Visual Impact and Heritage Assessment**, are based on the information included within the Control Documents and in **ES Volume 1, Chapter 4: Proposed Development**; and it is assumed that the indicative construction programme and associated works as set out in **ES Volume 1, Chapter 5: Enabling and Construction Works** are adhered to.
- It is assumed that the implementation of the mitigation measures identified in this ES are secured by the LBTH (through planning conditions and obligations (as appropriate));
- Where detailed information has not been available, reasonable assumptions have been made, and have been clearly set out, based on experience of developments of similar type and scale to enable assessment of likely significant effects; and
- Consented or reasonably foreseeable cumulative schemes will be implemented substantially in accordance with information that is publicly available and subject to the same regulatory regimes and good practice management controls as this Proposed Development.