Chapter 2: EIA Methodology

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 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 demolition and construction works, and on completion and operation/occupation.

2.2 The methodology of the EIA is in accordance with applicable legislation, guidance, and case law, as described within the sections below and within the respective chapters 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 chapters of this ES (**ES Volume 1, Chapters 6 to 14** and **ES Volume 2, Heritage, Townscape and Visual Impact Assessment**).

2.3 This ES chapter is accompanied by several appendices within **ES Volume 3**; these are referenced as relevant throughout this chapter and the remainder of **ES Volume 1**.

EIA GUIDANCE AND PLANNING POLICY

EIA Guidance

2.4 The ES has been prepared in accordance with applicable legislation and guidance, and relevant case law for the preparation of such documents. Specifically, this ES has been undertaken in accordance with the Institute of Environmental Management and Assessment (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, Communities and Local Government's (MHCLG) overarching Planning Practice Guidance[1];
- In addition, the Highway England's Design Manual for Roads and Bridges 'Sustainability and Environment' – LA 104 (Environmental Assessment and Monitoring)'[2];
- In relation to publications from professional bodies, reference has been made to IEMA publications as these include best practice/suggested improvements to the EIA process. This includes:
  - IEMA ES Review Criteria (COM3-6)[3];
  - IEMA 'Guidelines for Environmental Impact Assessment' (2004)[4];
  - IEMA 'Special Report into the State Environmental Impact Assessment Practice in the UK' (2011)[5];
  - IEMA 'Shaping Quality Development' (2015)[6];
  - IEMA 'Delivering Quality Development' (2016)[7];
  - IEMA 'Delivering Proportionate EIA' (2017)[8];
  - IEMA 'Materials and Waste in EIA' (2020)[9];
  - IEMA 'Major Accidents and Disasters in EIA: A Primer' (2020)[10];
  - IEMA 'Climate Change Resilience and Adaptation' (2020)[11]
  - IEMA 'Principles of Cultural Heritage Impact Assessment in the UK' (2021)[12];
  - IEMA 'Determining Significance for Human Health in Environmental Impact Assessment' (2022)[13];
  - IEMA 'Effective Scoping of Human Health in Environmental Impact Assessment' (2022)[14];
  - IEMA 'A New Perspective of Land and Soil in Environmental Impact Assessment' (2022)[15];
  - IEMA 'Assessing Greenhouse Gas Emissions and Evaluating their Significance' (2022)[16];
  - IEMA 'Environmental Assessment of Road Traffic'[17] (2023);
- Applicable EIA case law; and
- Topic specific guidance and assessment criteria, where appropriate.

2.5 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[18] where appropriate, as these can include relevant/helpful information.

Planning Policy

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

National Planning Policy and Guidance

2.7 The ES has had regard to the National Planning Policy Framework (NPPF)[19]. 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 for sustainable development, which are intended to be interpreted at a local level, to meet the requirements of local aspirations.

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

2.9 The ES also refers to the National Planning Practice Guidance (PPG)[20], 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.

Regional Planning Policy and Guidance

2.10 As relevant to the EIA technical topic scope, methodology or assessment of effects, 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 have also been considered and these are identified in the technical chapters of this ES (**Volume 1** and **Volume 2**):

[1] *http://www.gove.uk/guidance/environmental-impact-assessment*
[2] *Highways England, 2020. Design Manual for Roads and Brides 'Sustainability and Environment' – LA 104 Environmental Assessment and Monitoring*
[3] *Institute of Environmental Management and Assessment, undated; EIA Quality Mark – ES Review Criteria COM 3-6.*
[4] *Institute of Environmental Management and Assessment, 2004, Guidelines for Environmental Impact Assessment.*
[5] *Institute of Environmental Management and Assessment, 2011. The State of Environmental Impact Assessment Practice in the UK.*
[6] *Institute of Environmental Management and Assessment, November 2015. Shaping Quality Development.*
[7] *Institute of Environmental Management and Assessment, 2016; Delivering Quality Development.*
[8] *Institute of Environmental Management and Assessment, 2017; Delivering Proportionate EIA.*
[9] *Institute of Environmental Management and Assessment, 2020; Materials and Waste in EIA.*
[10] *Institute of Environmental Management and Assessment, 2020; Major Accidents and Disasters in EIA: A Primer.*
[11] *Institute of Environmental Management and Assessment, 2020; Climate Change Resilience and Adaptation.*
[12] *Institute of Environmental Management and Assessment, 2021; Principles of Cultural Heritage Impact Assessment in the UK*
[13] *Institute of Environmental Management and Assessment, 2022; Determining Significance for Human Health in Environmental Impact Assessment*
[14] *Institute of Environmental Management and Assessment, 2022; Effective Scoping of Human Health in Environmental Impact Assessment*
[15] *Institute of Environmental Management and Assessment, 2022; A New Perspective on Land and Soil in Environmental Impact Assessment.*
[16] *Institute of Environmental Management and Assessment, 2022; Assessing Greenhouse Gas Emissions and Evaluating their Significance.*
[17] *Institute of Environmental Management and Assessment, 2023; Environmental Assessment of Road Traffic.*
[18] *https://infrastructure.planninginspectorate.gov.uk/*
[19] *Ministry of Housing, Communities and Local Government (MHCLG), 2023; 'National Planning Policy Framework.'*
[20] *https://www.gov.uk/government/collections/planning-practice-guidance*

- The London Plan: The Spatial Development Strategy for Greater London (March 2021)[21] – hereafter referred to as 'the London Plan'; and
- Supplementary Planning Guidance (SPG) (i.e. further guidance on policies in the London Plan that cannot be addressed in sufficient detail in the Plan itself).

Local Planning Policy and Guidance

2.11 As relevant to the EIA technical topic scope, methodology or assessment of effects, the ES has had regard to key local planning policy and guidance documents.

The Southwark Local Plan

2.12 The Southwark Local Plan (the Local Plan)[22] was formally adopted by the London Borough of Southwark (LBS) in February 2022 and comprises of The Southwark Plan 2022 and Neighbourhood Plans.

2.13 The Southwark Plan 2022 includes the regeneration strategy for the borough, policies that are used to make decisions on planning application, key development sites with land use and urban design requirements and visions for each of the borough's neighbourhoods.

2.14 The site is allocated within the Southwark Plan (NSP74: Aylesham Centre and Peckham Bus Station) for the provision of a residential-led mixed use development. The Southwark Plan sets out the requirement for the provision of at least 850 new homes, including a mix of private and affordable tenures, and reprovision of at least the existing amount commercial floorspace currently on the site and of the supermarket use.

2.15 The Southwark Plan 2022 is also supported by a number of Supplementary Planning Documents (SPDs) to provide further guidance on policies set out in the Southwark Plan.

EIA SCOPING AND CONSULTATION

Consultation

2.16 Consultation is an ongoing process and has fed into the design of the Proposed Development. **ES Volume 1, Chapter 3: Alternatives and Design Evolution** provides an overview of the consultation undertaken in respect of the alternatives considered by the Applicant and the design evolution of the Proposed Development, specifically in relation to environmental considerations. A summary of consultation undertaken with respect to the design of the Proposed Development is provided in **ES Volume 1, Chapter 3: Alternatives and Design Evolution**.

2.17 Consultation has also fed into and influenced the preparation of the EIA, in regard to both the scope and the methodology of the ES as set out in the 'EIA Scoping' section below. Where appropriate, separate topic-specific consultation has also been undertaken with relevant parties, and is summarised in the introductory sections of **ES Volume 1, Chapters 6 to 14** and **ES Volume 2, Heritage, Townscape and Visual Impact Assessment**.

2.18 The planning application is accompanied by a Planning Statement, Statement of Community Involvement (SCI) and the Design and Access Statement (DAS) which together summarise the wider consultation that has been undertaken with various consultees throughout the pre-application process.

EIA Scoping

2.19 Scoping forms one of the first stages of the EIA process and it is through scoping that the LBS (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 requires the ES to be based on the most recent EIA Scoping Opinion.

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

2.21 The main purposes of the EIA scoping process is to establish the approach to the EIA. This includes:

- Identification of the availability of 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 and the methodology for assessment based on the potential for significant effects as a result of the Proposed Development and demolition and construction works;
- Identification of any topics that can be scoped out of the EIA, 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.

2.22 A request for an EIA Scoping Opinion (hereafter referred to as the 'EIA Scoping Report') was submitted by the Applicant to the LBS on 11th January 2024 (LBS application reference: 24/AP/0111). The EIA Scoping Report is presented in **ES Volume 3, Appendix: EIA Methodology – Annex 1.** The EIA Scoping Report set 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 EIA Scoping Report included the proposed approach that would be adopted for the EIA including the proposed scope of the ES (i.e. those topics to be 'scoped in' and 'scoped out') and assessment methodologies to predict the nature and scale of effects and to assess whether these effects are considered to be 'significant' in each case.

2.23 An EIA Scoping Opinion was received from the LBS on 27th March 2024 (**ES Volume 3, Appendix: EIA Methodology – Annex 2)**. Regulation 18(4) of the EIA Regulations require the ES to be based on the most recent EIA Scoping Opinion. This ES is based on the Scoping Opinion received from LBS. Where clarifications raised by the EIA Scoping Opinion required additions or variations to the assessment scope originally set out within the EIA Scoping Report, these have been addressed as part of the ES. The front of each of the technical chapters included within the ES provides an overview of relevant consultation correspondence undertaken as part of the EIA, as well as context (if required) for points raised during the EIA Scoping process and how these have been addressed where relevant.

2.24 The EIA Scoping process identified the environmental technical topics which are considered unlikely to give rise to significant environmental effects and, therefore, do not need to be assessed further as part of the EIA. Full justification for scoping these technical topics out of the EIA is outlined within the EIA Scoping Report, which can be found within **ES Volume 3, Appendix: EIA Methodology – Annex 1**.

'Scoped-In' Topics

2.25 The environmental topics that were identified during the EIA Scoping process that could potentially give rise to likely significant effects and that have therefore been addressed by EIA are listed below:

- Demolition and Construction Works (**ES Volume 1, Chapter 5**);
- Socio-Economics (**ES Volume 1, Chapter 6**);
- Traffic and Transport (**ES Volume 1, Chapter 7**);
- Air Quality (**ES Volume 1, Chapter 8**);

[21] *Greater London Authority (GLA), (2021); The London Plan: The Spatial Development Strategy for Greater London.*

[22] *London Borough of Southwark (2022); The Southwark Plan 2019-2036, Adopted February 2022*

- Noise and Vibration (**ES Volume 1, Chapter 9**);
- Daylight, Sunlight and Overshadowing (**ES Volume 1, Chapter 10**);
- Wind Microclimate (**ES Volume 1, Chapter 11**);
- Archaeology (**ES Volume 1, Chapter 12**);
- Ground Conditions and Land Contamination (**ES Volume 1, Chapter 13**);
- Climate Change and Greenhouse Gases (**ES Volume 1, Chapter 14**); and
- Heritage, Townscape and Visual Impact Assessment (**ES Volume 2**).

'Scoped-Out' Topics

2.26 The EIA Scoping Report identified several environmental topics which are not likely to give rise to significant environmental effects and therefore would not need to be assessed further as part of the EIA process. The EIA Scoping Report is provided in **ES Volume 3, Appendix: EIA Methodology – Annex 1** and includes the justification for why significant effects in relation to these topics is not likely and why they are therefore 'scoped out' of the ES. The scope of the ES and topics which are scoped out were agreed with the LBS and forms part of their EIA Scoping Opinion (**ES Volume 3, Appendix: EIA Methodology – Annex 2**). The 'scoped out' topics are listed below:

- Ecology and Biodiversity;
- Health;
- Land Take and Soils;
- Light Pollution and Solar Glare;
- Project Vulnerability (Major Accidents and Disasters);
- Waste and Materials; and
- Water Resources, Flood Risk and Drainage.

2.27 A point regarding the consideration of light pollution and solar glare was raised in the EIA Scoping Opinion received from the LBS. However, the professional opinion of scoping out of these topics notes that due to the Proposed Development being a residential led scheme, residential uses are not required to be assessed themselves due to typical use i.e. the expectation that the residents will turn off the lights and close the blinds and curtains at nighttime, leading to minimal light spill. Additionally, for the few residential units situated opposite to the commercial uses within the Proposed Development, the bedrooms are not located on the ground floor level and are either oriented away from the commercial units or are situated a fair distance away meaning that the effect of light spillage would be minimal. In terms of scoping out of solar glare, the Proposed Development does not propose buildings with extensive areas of reflective material and since the external façade is also predominantly brick, the prolonged instances of solar reflection are not anticipated. Further explanation is provided within **ES Volume 1, Chapter 10: Daylight, Sunlight and Overshadowing**.

2.28 Any necessary mitigation measures relied upon to scope these topics out of the ES are included in **ES Volume 1, Chapter 17: Environmental Management, Mitigation and Monitoring Schedule,** measures should be secured through a condition by the LBS or through a section 106 legal agreement ('S106')**.**

ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

2.29 The method behind the EIA process generally[23] 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 Proposed Development is completed and operating as proposed. The predicted impact is considered in terms of key environmental and social aspects (**receptors**) found within the surrounding area, and based on their sensitivity to change, the scale of the resulting change experienced by the receptor / resource (**the effect**) is then determined along with a statement on whether the effect is significant or not.

2.30 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.

2.31 Effects resulting from a combination of the Proposed Development and other surrounding schemes (**cumulative schemes**) are also assessed. All the likely effects of the development are reported (within the ES) and the likely significant effects are specifically highlighted.

Baseline Conditions

2.32 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.

2.33 Baseline assessments 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 an up-to-date description of the baseline conditions of the site and surrounding area within the ES for each of the individual technical chapters.

2.34 For most technical disciplines, the baseline has been taken as the existing conditions within the site and the surrounding area, at the time of assessment (i.e. in the assessment year of 2024), although in defining the baseline conditions, data from preceding years may be used where the data remains relevant (e.g. with regards to air quality).

2.35 Cumulative schemes are set out in the *'Cumulative Effects and Effect Interactions'* section of this ES chapter and are shown in Figure 2.1. In some instances, where schemes are under construction and the works are sufficiently progressed or where early phases are occupied, these schemes have been factored into the baseline conditions (as a future baseline). The approach taken for each assessment is set out in the respective technical ES chapters in **ES Volume 1, Chapters 6 to 14**.

Evolution of the Baseline/Future Baseline Year

2.36 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), emphasis added):

'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'.

2.37 The evolved baseline is a baseline condition at an indeterminate point in the future, for a scenario which assumes all of the 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

[23] *There may be exceptions to the general approach described. Where there are exceptions, this will be clearly described within the relevant methodology section of the technical chapters, outlining both the departure from the general EIA methodology and the description of the alternative approach.*

implemented. In most cases this is a qualitative approach (professional opinion), but in some instances may be quantitative.

2.38 The Traffic and Transport, Air Quality and Noise and Vibration assessments include a projected future environmental condition (specifically in relation to future road traffic flows to account for any background growth in road traffic between the baseline and the future opening year of the Proposed Development). The anticipated opening year (and so future baseline year) for the Proposed Development is 2029 (**ES Volume 1, Chapter 5: Demolition and Construction**). Further details on the methodology for defining the future baseline conditions in respect of road traffic are provided within **ES Volume 1, Chapter 7: Traffic and Transport**, **ES Volume 1, Chapter 8: Air Quality** and **ES Volume 1, Chapter 9: Noise and Vibration**.

2.39 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 **14,** and **ES Volume 2**).

Potentially Sensitive Receptors

2.40 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.

2.41 Within each of the technical ES assessments (**ES Volume 1, Chapters 6 to 14** and **ES Volume 2, Heritage, Townscape and Visual Impact Assessment**), a list of sensitive receptors is presented which are considered to have the potential to be affected by the Proposed Development.

2.42 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: The 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.

Identification of Impacts, Effects and Effect Significance

Terminology and Definitions

Reference to 'Impact' and 'Effect'

2.43 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.

2.44 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

2.45 To achieve a consistent approach across the different technical disciplines addressed within **ES Volume 1**and **ES Volume 2,** the individual assessments have broadly defined 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. Technical specialists have used their own approach or amended the approach stated below based on what is appropriate for their assessments.

2.46 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 14**:

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

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

2.48 Each of the technical assessment chapters of the **ES Volume 1** and **ES Volume 2** has provided further detail on the definition of each of the above terms specific to the topic in question and will 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.

2.49 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

2.50 The basis for determining the resultant effect generally considers the sensitivity of the receptor and magnitude of impact or change from the baseline conditions. A generic matrix that combines the sensitivity of the receptor and the magnitude of impact to identify the resultant effect is provided within Table 2.1.

2.51 As discussed above, this is the general approach to assessment within this ES, and there may be exceptions to the general approach described in specific ES technical assessments. Where there are exceptions, this will be clearly described within the relevant methodology section of the technical chapters, outlining both the departure from the general EIA methodology and the description of the alternative approach.

Table 2.1 Effects Matrix

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

*To be determined using professional judgement

Identification of the Scale of Effect

2.52 The categories and definitions of the 'scale' of the resultant effect i.e. definitions of Major, Moderate, Minor and Negligible effects have been adjusted to suit the technical topic in question; where this is the case revised definitions of effect scale will be presented in the technical assessment chapters of the **ES Volume 1** and in **ES Volume 2.**

2.53 Where there is no impact to a receptor and therefore no effect, this has been stated.

Effect Nature

2.54 The definitions of the 'nature' of the resultant effect i.e. definitions of adverse, beneficial, neutral effects, are outlined in Table 2.2.

Table 2.2 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	Either there is no noticeable beneficial or adverse effect, or the effect is considered neither beneficial nor adverse overall, having made a 'net equation' judgment that takes into account both beneficial and adverse impacts.

2.55 Significant neutral environmental effects are only included where relevant within the Heritage, Townscape and Visual Impact Assessment as per the relevant guidance[24]. The methodology of the 'neutral' classification is clearly outlined in the methodology section of the assessment within **ES Volume 2, Heritage, Townscape and Visual Impact Assessment.**

Geographic Extent of Effect

2.56 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 LBS, 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 as a whole, are considered being at a 'national' level.

Effect Duration

2.57 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

2.58 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).

Significance of Effect

2.59 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, has been 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'. Each technical assessment determines at what scale an effect is deemed to be significant, as this varies depending on the topic.

2.60 As a general rule, the following applies (though where this differs for a technical topic, this has been 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.

2.61 Where mitigation measures are identified to either eliminate or reduce adverse effects, these are explained within the ES, for example either through the design, or will be translated into construction commitments; or operational or managerial standards / procedures. It should be noted that mitigation is not required for effects that are deemed to be negligible as the effect will be imperceptible.

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

Impact Assessment – General Methodology

2.63 Detailed methodologies for the assessment of each of the environmental topic areas scoped into the EIA are provided within each technical chapter of **ES Volume 1** and in **ES Volume 2**, however, in general terms, the assessments have been based upon:

- Desk-top studies;
- Site surveys (where possible);
- Consideration of relevant legislation;
- Consideration of relevant planning policies (national, regional and local);
- Consideration of potentially sensitive receptors that could be affected by the Proposed Development;
- Identification of likely environmental impacts, with an evaluation of their likely magnitude, and resultant effects in terms of their nature, scale, geographic extent, duration and whether they are direct or indirect or transboundary;
- Consideration of the requirement for any specific mitigation;
- Expert opinion;
- The use of technical guidance and best practice; and
- Specific consultations with appropriate organisations.

2.64 Mitigation is the term used to refer to the process of avoiding where possible and, if not, minimising, controlling and/or off-setting potentially significant adverse effects of a development. Mitigation measures can relate to the design stage; the demolition and construction stage; or the activities associated with the operation of the completed Proposed Development.

2.65 As part of the EIA, an iterative approach has been adopted where significant environmental effects have been avoided where possible in the first instance through design refinements and iterations, as reported upon within **ES Volume 1, Chapter 3: Alternatives and Design Evolution**. Where adverse environmental effects were identified through early assessment work, opportunities to reduce or control impacts and effects have been identified and incorporated into the Proposed Development. In addition, opportunities to enhance the beneficial environmental effects of the Proposed Development have also been sought and incorporated into the Proposed Development.

2.66 Within each technical ES chapter, the assessment of the potential effects that are likely to arise because of a potential impact/change to receptors from the Proposed Development is initially presented. If any mitigation measures are required, further to that already integrated into the Proposed Development throughout its evolution, these are incorporated, and the Proposed Development is reassessed to ascertain the likely residual

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

effects and any which are significant. This is reported on within each technical chapter of this ES **(Volume 1** and **Volume 2)**.

2.67 How the Proposed Development might affect the environment, relies on predictions about what impact a certain action will have. Some predictions can be made using mathematical or simulation models. Other impacts are less easy to predict in quantitative terms. In such cases, the EIA attempts to quantify the anticipated scale of impact using professional judgement.

Assessment Scenarios

2.68 Each of the technical topic areas that have the potential for significant effects consider the following scenarios within their assessments:

- Demolition and Construction – potential effects as a result of the demolition and construction activities associated with the Proposed Development;
- Phasing – the Proposed Development is anticipated to have a phased completion / occupation, being constructed across two broad phases, which will be assessed where relevant;
- Completed Development – potential effects as a result of the fully completed and operational Proposed Development; and
- Cumulative – the Proposed Development with other surrounding development schemes, often referred to as 'cumulative schemes'.

2.69 Further information in regard to the phased delivery of the Proposed Development is defined within **ES Volume 1, Chapter 5: Demolition and Construction**. Where technical assessments have considered additional scenarios for the demolition and construction stage, these have been identified within the relevant ES chapters.

Demolition and Construction

2.70 An outline of the anticipated demolition and construction programme and related activities and aspects (including but not limited to enabling works, demolition works, substructure works, superstructure works, site clearance and excavation waste volumes and construction material quantities, heavy goods vehicle (HGV) movements and HGV routing) is presented within **ES Volume 1, Chapter 5: Demolition and Construction**.

2.71 The peak periods of daily HGV movements, and annual averages, associated with the demolition and construction works have also been presented.

2.72 This information informs the demolition and construction impact assessments of each technical chapter of the ES. Throughout the demolition and construction impact assessments, the assumption has been made that the standard environmental controls required under legislation and best practice guidance are met as a matter of course.

2.73 The assessment of the potential likely significant effects arising during the demolition and construction works is addressed within each of the individual technical assessment chapters of the ES. The demolition and construction assessments presented within the technical chapters of the ES identify the need for any additional or bespoke environmental management or mitigation measures in order to avoid, prevent, reduce or off-set any significant adverse effects identified.

2.74 Where required, a description of any proposed monitoring arrangements has also been presented with a description (where appropriate) of the procedures for the monitoring of the relevant significant adverse effects, the types of parameters to be monitored and the monitoring duration.

2.75 All the measures proposed within the technical ES chapters have also been compiled and presented in a mitigation and monitoring schedule within **ES Volume 1, Chapter 17: Environmental Management, Mitigation and Monitoring Schedule**.

2.76 It is anticipated that any required construction related environmental management / mitigation and monitoring measures identified within the ES would be secured and controlled through appropriate Demolition and Construction Environmental Management Plan (DCEMP) (further discussed within **ES Volume 1, Chapter 5: Demolition and Construction**) and it is proposed that the requirement for this be secured by a suitably worded planning condition attached to the consent of the planning application. Key mitigation and management controls that would form part of a DCEMP are presented in the relevant ES chapters and **ES Volume 1, Chapter 17: Environmental Management, Mitigation and Monitoring Schedule**.

Phasing

2.77 The construction and occupation of the Proposed Development is likely to be phased, as set out in **ES Volume 1, Chapter 5: Demolition and Construction.** Each of the technical assessments (**ES Volume 1, Chapters 6 to 14**, and **ES Volume 2**) have considered, where relevant, the potential for the phasing to impact the assessments undertaken and the residual effects.

Completed and Operational

2.78 The ES presents a description of the Proposed Development in order to provide suitable context to enable the assessment of potential and likely significant environmental effects. Sufficient information regarding the key aspects of the Proposed Development is presented in **ES Volume 1, Chapter 4: The Proposed Development**) to allow an understanding of the Proposed Development, in order to enable the assessment of potential and likely significant environmental effects of the completed and operational development.

2.79 Information on the details of the Proposed Development sought for approval include (but are not limited to):

- Layout – building footprints;
- Scale – the massing (including heights of buildings);
- Quantum– floor areas and use classes;
- Appearance – architectural detail and materiality;
- Access and egress – vehicular, pedestrian and cyclist accessibility into, out of and around the site;
- Parking provision (where relevant) – including vehicles, motorcycle and cycle;
- Deliveries and servicing strategy – including overview of estimates of the types and quantities of waste anticipated and strategy for waste storage, handling and collection;
- Energy strategy;
- Landscaping – including planting strategy, species and habitats and urban greening and biodiversity net gain;
- Private and public amenity space including children's playspace;
- Sustainability including carbon reduction measures and climate change resilience; and
- Utilities and infrastructure, including potable water supply and wastewater discharges / drainage.

2.80 In addition, where necessary to inform the impact assessments, details of the Proposed Development have been taken from other documents that have been prepared for the purposes of and which, are submitted alongside the Planning Application, for example, the DAS, Energy Strategy, Sustainability Statement and Planning Statement. Where information from these documents have been relied upon, the information has been presented within the ES.

Cumulative Effects and Effect Interactions

2.81 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 of effects with other existing and/or approved projects*" (Schedule 4, (5)(e)).

2.82 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. 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 demolition and construction works and once the Proposed Development is complete and occupied is considered.

2.83 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 LBS.

2.84 The EIA identifies the potential for the following, which is described below:

- Inter Cumulative Effects – Cumulative Effects with Other Developments; and
- Intra Cumulative Effects – Effect Interactions.

Inter Cumulative Effects – Cumulative Effects with Other Developments

2.85 Cumulative effects arising from the Proposed Development in combination with other surrounding development schemes or 'cumulative schemes' during the construction works and once the Proposed Development is complete are considered by the EIA. The EIA Regulations require an assessment of potentially significant cumulative effects of the Proposed Development along with other developments. There are no legislative or policy requirements which set out how a cumulative impact assessment should be undertaken.

2.86 The cumulative schemes that are considered within the ES are typically located within a 1km radius from the centre of the site as this spatial extent is considered appropriate for determining cumulative effects in this locality.

2.87 This catchment area has been set to provide a reasonable study area for the assessment of cumulative effects. The above criteria of using 1km radius for the consideration of cumulative schemes forms a guide in the absence of any formal EIA cumulative scheme guidance. It is considered that for most of the technical topics within an EIA, the cumulative effects assessment for schemes located beyond the above criteria is negligible

2.88 However, it is acknowledged that for certain topics of the EIA (specifically built heritage, townscape and visual), there may be a need to consider more distant schemes within the cumulative effects assessment. This is appropriate, given the view locations associated with the heritage, townscape and visual impact assessment and therefore, the cumulative schemes included for the heritage, townscape and visual assessment may differ slightly to the schemes listed below (the full list of cumulative schemes considered as part of the heritage, townscape and visual assessment is presented within **ES Volume 2**).

2.89 The criteria for the cumulative schemes included within the cumulative effects assessment include the following:

- Development located within a 1km radius from the site that is subject to a planning application (and is either yet to be determined, have planning consent or a resolution to grant) comprising either;
  - An uplift of more than 10,000m^2 (Gross External Area (GEA) of mixed-use floorspace), or over 150 dwellings; or
  - Office to residential conversions (granted under the General Permitted Development Order) giving rise to more than 150 dwellings;

    Or
  - Any development / change of use adjacent to the site.

2.90 Consideration has also been given to strategic planned development, including infrastructure work, where applicable to the site and the Proposed Development.

2.91 The criteria listed above have been set to allow all the schemes coming forward within the LBS 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.

2.92 By applying these criteria 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. Therefore, the cumulative scheme list contains those schemes that could cumulatively have a likely significant effect on the environment. 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 appropriate reasoning behind their inclusion. Where cumulative schemes are 'screened out' of the specific technical cumulative effects assessment, the reasoning for doing so will be presented.

2.93 It is noted that a number of schemes are located just outside of the 1km radius along the Old Kent Road. These schemes have been included for consideration within the EIA cumulative assessments due to the level of regeneration proposed within the area, and to therefore ensure cumulative effects are accurately reported.

2.94 Schemes which fall within the above criteria and are under construction, where the construction works are significantly progressed or where early phases are occupied, will be factored into the baseline conditions (as a future baseline). If relevant, this will be clearly set out within each individual topic's cumulative assessment methodology text.

2.95 The following 24 cumulative schemes are considered within the EIA:

1) 213 Rye Lane London
2) Aylesbury Estate Phase 1
3) Aylesbury Estate Site Phase 2B
4) Malt Street Regeneration Site Land
5) Land At Cantium Retail Park
6) 840 Old Kent Road
7) Land At 313-349 Ilderton Road
8) Land Bounded By Ruby Street Murdock Street and 685-695 Old Kent Road
9) 651-657 Old Kent Road
10) Ruby Triangle Site
11) 6-12 Verney Road
12) 227-255 Ilderton Road
13) 747-759 & 765-775 Old Kent Road & Land at Devonshire Grove
14) Open Land Rear Of 1-51 Peckham High Street (also referred to as Summerhouse and Flaxyard)
15) Vacant Site Opposite Central Venture Park Commercial Way
16) Ledbury Estate Commercial Way
17) Southernwood Retail Park 2 Humphrey Street
18) Dulwich Hamlet Football Ground
19) 40-46 Solomons Passage
20) 25-33 Parkhouse Street
21) Bells Gardens Community Centre
22) 812 Old Kent Road
23) Ilderton Wharf 1-7 Rollins Street
24) Land A at Surrey Canal Road, Stockholm Road, Bolina Road and Rollins Street

2.96 Figure 2.1 presents the locations of the above identified cumulative schemes in relation to the Proposed Development.

2.97 Further details of the cumulative schemes are located within **ES Volume 3, Appendix: EIA Methodology – Annex 3** and the consideration of cumulative effects is provided in each of the technical chapters of the ES **(ES Volume 1, Chapters 6** to **14)**.

Intra Cumulative Effects – Effect Interactions

2.98 Effect interactions from the Proposed Development itself on surrounding sensitive receptors during the demolition and construction works and also once the Proposed Development is completed are considered within this ES (**ES Volume 1, Chapter 15: Effect Interactions**). 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.

2.99 Effect interactions from the Proposed Development itself on particular receptors at the site and surrounds are considered during the demolition and construction works, and also once the Proposed Development is completed and operational. Dependent on the relevant sensitive receptors, the assessment focuses either on key individual receptors or on groups considered to be most sensitive to potential interacting effects. The criteria for identifying those receptors which are considered to be potentially sensitive include existing land uses, proximity to the construction works and the site, and likely duration of exposure to impacts. It should be noted that only residual effects that are minor, moderate or major in scale are considered within this assessment, as negligible effects are, by definition, imperceptible in their nature. Residual effects that do not affect a common sensitive receptor or receptor group are not presented, as no effect interactions are anticipated. Only residual effects that are likely to give rise to effect interactions have been considered and are discussed as relevant.

2.100 There is no established methodology for assessing the impact of cumulative effects on a particular receptor. The interaction of a combination of individual effects is determined to be either 'not significant' or 'significant', a scale of the combined effects (negligible, minor, moderate or major) is not applied[25]. If one of the individual effects is significant the combination of effects would be regarded as 'significant'. If none of the individual effects are significant, consideration has been given as to whether or not the combination of many not significant effects could result in a combined significant effect, based on professional opinion.

STRUCTURE OF TECHNICAL ASSESSMENTS

2.101 This ES reports on the potential (before mitigation) and residual (after mitigation) environmental effects of the Proposed Development during demolition and construction works and on subsequent completion and operation/occupation. The ES also concludes with a summary of the likely significant beneficial, neutral and adverse environmental effects of the Proposed Development (**ES Volume 1, Chapter 16: Likely Significant Effects and Conclusions**).

2.102 Each of the environmental topics considered in the EIA has been assigned a separate chapter in **ES Volume 1, Chapter 6 to 14** and **ES Volume 2, Heritage, Townscape and Visual Impact Assessment**. 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 process;
- Assessment Methodology – an explanation of the approach to defining the baseline conditions, assessment scenarios and evolved baseline conditions, undertaking the impact assessment (for both construction and operation, and any key assumptions and limitations 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 – may include / be based upon a future baseline).
- Receptors and Receptor Sensitivity – identification of the existing and introduced (new) receptors on the site and in the surrounding area that may be affected by the Proposed Development and identification of their sensitivity;
- Embedded Mitigation – a description of embedded mitigation measures that are already embedded within the Proposed Development prior to design freeze and are a fundamental part of the design the planning application is seeking consent for and which have been accounted for in the assessment of potential environmental effects;
- Potential Effects – an assessment of the potential effects of the Proposed Development during demolition and construction, the phased demolition/construction and/or operation, and on completion, setting out the impacts and effects associated with each aspect of the assessment without the implementation of mitigation;
- Mitigation Measures, Monitoring and Residual Effects – a description of the mitigation measures that are being committed to and a summary of the residual effects of the Proposed Development. Any monitoring that is required is also stated;
- Site Suitability – as relevant, a description of the site suitability assessment that were undertaken for the Proposed Development. Only applicable to noise and vibration and air quality assessments;
- Assessment of Future Environment and Cumulative Effects Assessment – a description of the likely evolution of the baseline (as relevant) and an assessment of the likely cumulative effects of the Proposed Development with the cumulative schemes; and
- Likely Significant Effects – a short statement confirming which residual effects are considered to be 'significant'.

2.103 ES Volume 2 which comprises the Heritage, Townscape, and Visual Impact Assessment follows its own bespoke format.

KEY ASSUMPTIONS AND LIMITATIONS

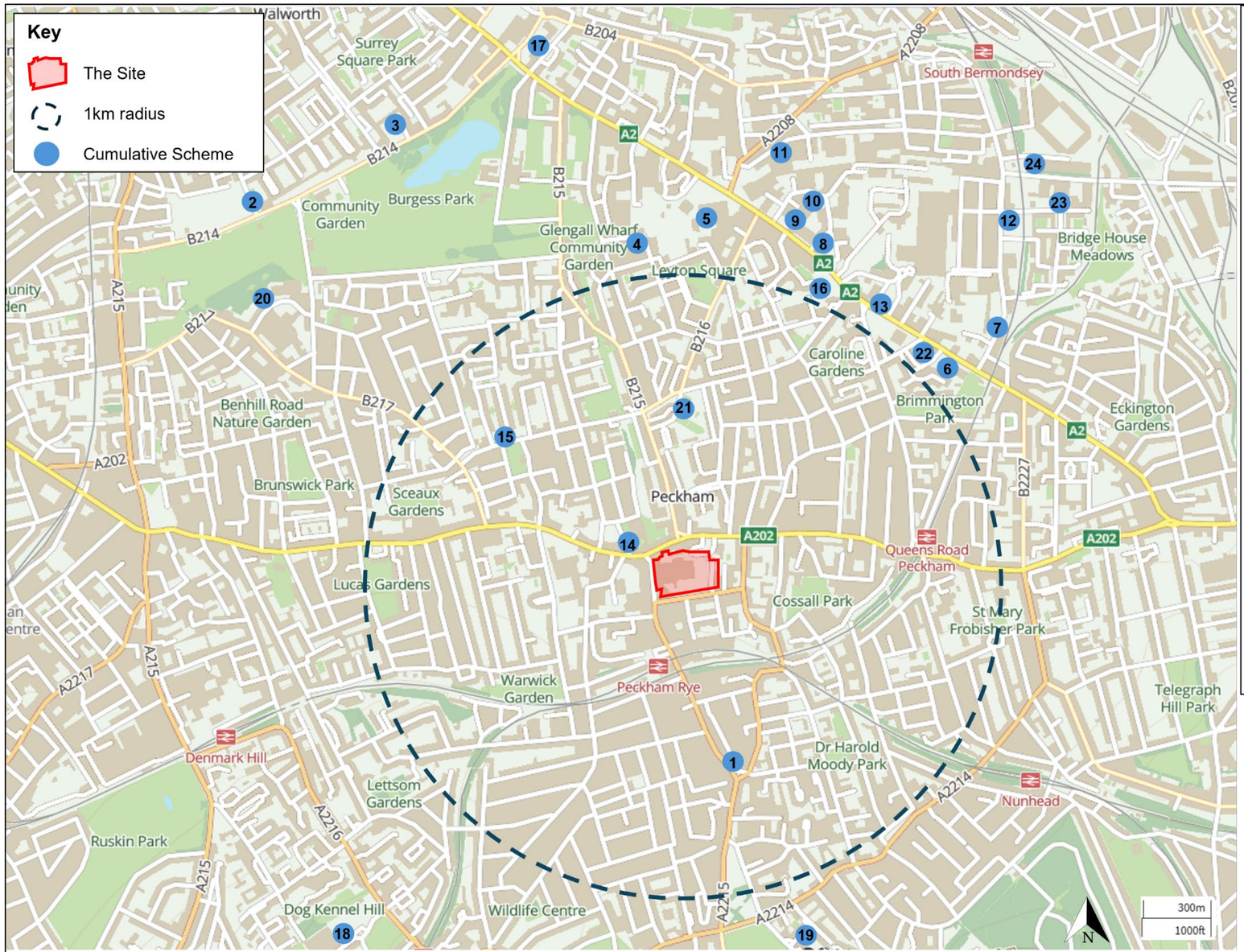
2.104 The principal assumptions that have been made, and any limitations that have been identified, in undertaking the EIA are set out below. Assumptions specifically relevant to each technical topic have been set out in each technical chapter of the ES:

- 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** technical chapters and in **ES Volume 2** are based on an assumption that embedded mitigation measures set out in application drawings, through regulatory regimes or via the management controls as set out in **ES Volume 1, Chapter 4: The Proposed Development** and **Chapter 5: Demolition and Construction** are implemented;
- The mitigation and monitoring measures outlined within **ES Volume 1, Chapter 17: Environmental Management, Mitigation and Monitoring Schedule** are implemented**,** secured by the LBS (through planning conditions and/or obligations (as appropriate);
- Demolition and construction works across the site would take place substantially in accordance with the programme of works described in **ES Volume 1, Chapter 5: Demolition and Construction**;

[25] *The methodology for determining a significant in-combination effect has been defined by the HS2 Phase 2a: West Midlands – Crewe Scoping and Methodology Report (July 2017) and the published HS2 Phase 2a Environmental Statement Volume 1 Introduction and Methodology and Volume 2 Community Area Reports (July 2017). The methodology for assigning significance to in combination effects has been specifically included in this ES to assess if there are any combination effects would result in a significant effect.*

- 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;
- Consented or proposed 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; and
- The aim of the EIA is not to assess the Proposed Development's compliance / performance against planning policy, as this is considered within the Planning Statement that accompanies the planning application. Instead, reference is made to relevant national, regional and local policy and guidance to inform the scope of the assessment, the assessment methodologies applied, and the existence of any sensitive receptors to be considered.

Figure 2.1 Cumulative Schemes



Cumulative Schemes

Schemes that are Approved and which form part of the Cumulative Assessment

1. 213 Rye Lane London
2. Aylesbury Estate Phase 1
3. Aylesbury Estate Site Phase 2B
4. Malt Street Regeneration Site Land
5. Land At Cantium Retail Park
6. 840 Old Kent Road
7. Land At 313-349 Ilderton Road
8. Land Bounded By Ruby Street Murdock Street And 685-695 Old Kent Road
9. 651-657 Old Kent Road
10. Ruby Triangle Site Land
11. 6-12 Verney Road
12. 227-255 Ilderton Road
13. 747-759 & 765-775 Old Kent Road & Land At Devonshire Grove
14. Open Land Rear Of 1-51 Peckham High Street
15. Vacant Site Opposite Central Venture Park Commercial Way
16. Ledbury Estate Commercial Way
17. Southernwood Retail Park 2 Humphrey Street
18. Dulwich Hamlet Football Ground
19. 40-46 Solomons Passage
20. 25-33 Parkhouse Street
21. Bells Gardens Community Centre

Submitted and Pending Determination

22. 812 Old Kent Road
23. Ilderton Wharf 1-7 Rollins Street
24. Land A at Surrey Canal Road, Stockholm Road, Bolina Road And, Rollins Street,