

SCOPING OPINION:

Proposed Expansion of Heathrow Airport (Third Runway)

Case Reference: TR020003

Adopted by the Planning Inspectorate (on behalf of the Secretary of State for Housing, Communities and Local Government) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

June 2018

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1. INTRODUCTION

1.1 Background

- 1.1.1 On 21 May 2018, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Heathrow Airport Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Expansion of Heathrow Airport (Third Runway) (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion *'as to the scope, and level of detail, of the information to be provided in the environmental statement'*.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled 'Airport Expansion EIA Scoping Report' (the Scoping Report), which was provided in three volumes (main text, figures and appendices). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a Scoping Opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
 - (b) *the specific characteristics of the development;*
 - (c) *the likely significant effects of the development on the environment;*
and
 - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement

and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in its request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) a plan sufficient to identify the land;*
 - (b) a description of the proposed development, including its location and technical capacity;*
 - (c) an explanation of the likely significant effects of the development on the environment; and*
 - (d) such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on 'the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)'.
- 1.1.13 Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). This assessment must be co-ordinated with the EIA in accordance with Regulation 26 of the EIA Regulations. The Applicant's ES should therefore be co-ordinated with any assessment made under the Habitats Regulations.

1.2 The Planning Inspectorate's Consultation

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting this Scoping Opinion. A list of the consultation bodies formally consulted by

the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform its consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in preparing its ES.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in preparing its ES.

1.3 Article 50 of the Treaty on European Union

- 1.3.1 On 23 June 2016, the United Kingdom (UK) held a referendum and voted to leave the European Union (EU). On 29 March 2017 the Prime Minister triggered Article 50 of the Treaty on European Union, which commenced a two year period of negotiations regarding the UK's exit from the EU. There is no immediate change to legislation or policy affecting national infrastructure. Relevant EU Directives have been transposed into UK law and those are unchanged until amended by Parliament.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in its Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/resources.

2.2 Description of the Proposed Development

2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in Chapters 2 – 3 of the Scoping Report and in the associated figures and appendices.

2.2.2 The Proposed Development involves the remodelling and expansion of the existing Heathrow Airport (the Airport) to enable an increase in operating capacity from 480,000 air transport movements (ATM) per annum to at least 740,000 ATM per annum, and from around 76 million passengers per annum (mppa) to 130 mppa. The Scoping Report states that the Proposed Development is defined as a Nationally Significant Infrastructure Project (NSIP) under the terms of Section 22 (for works to the M25) and Section 23 (for the increased capability facilitated by the new runway and terminals) of the PA2008. There will also be Associated Development to the NSIPs.

2.2.3 The Proposed Development is to be located at the existing site of the Airport and in the surrounding area, as shown in Figure 3.1 of the Scoping Report. The Scoping Report states that the extent of development (including Associated Development) shown in Figure 3.1 is *"the maximum extent based on all of the options for components that have been the subject of consultation in Consultation 1"*. The final application may therefore be based on a smaller development footprint.

2.2.4 Scoping Report Figure 1.3 shows that the main proposed operational airport development, as defined by the 'Heathrow Planning Boundary', lies within the administrative area of the London Boroughs (LB) of Hillingdon and Hounslow, which are part of the Greater London Authority. However, the wider project is located across the administrative areas of South Bucks District Council (DC); Buckinghamshire County Council (CC); Slough Borough Council (BC); Spelthorne BC; Surrey CC; and the Royal Borough of Windsor and Maidenhead.

2.2.5 The key components of the Proposed Development include:

- a new third runway of between 3,200m and 3,500m in length located to the northwest of the Airport, with connecting taxiways;

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Expansion of Heathrow Airport (Third Runway)

- re-alignment of the M25 motorway and other road network changes including diversions to the A4 and A3044 and associated junction works;
- development of additional terminal and satellite buildings and changes to internal access roads;
- development of additional aircraft stands and apron space;
- diversion of the River Colne, the Colne Brook, the River Wraysbury, the Longford River and the Duke of Northumberland's River and creation of compensatory flood storage;
- upgrading of the current central bus station;
- delivery of airport supporting facilities including, but not limited to: cargo floor space; fuel storage; maintenance, repair and overhaul floorspace; an air traffic control tower; upgraded and new waste water treatment and network infrastructure; diversion, relocation, protection and/or expansion of the public utilities network; energy generation plant; upgraded and new waste and recycling centres; and consolidation of car parking;
- the displacement of certain commercial uses, infrastructure and major facilities currently in place at the existing airport such as: immigration removal centres; Lakeside Waste Management Facilities; British Airways' Waterside office; BT data centre and maintenance depot; Total fuel depot; SSE substation and pylons; Total rail head; and
- temporary construction facilities, including contractor compounds, lorry parks, concrete plants, assembly facilities, borrow pits, stockpiles and construction workers' accommodation. The Applicant also proposes to use offsite logistics hubs located across the UK for the delivery of materials.

2.2.6 The Applicant estimates that the Proposed Development will require a peak construction workforce of up to 15,000 workers and create approximately 40,000 new jobs during operation.

2.2.7 Section 3.4 of the Scoping Report states that the indicative period for the construction of the new runway and any components required for operation of the runway is currently 2021-2026, but that the construction of terminals and associated infrastructure will be phased, and is expected to be fully developed by 2035. The construction phase includes: the enabling works for site preparation (2011- 2024); and the airfield expansion including the runway and taxiways works (2024 – 2026); the operational phase includes operational commencement of the third runway (2026 onwards); and delivery of the campus development including construction of the new terminals and satellite buildings (2023 – 2035).

- 2.2.8 The Scoping Report proposes to adopt a series of construction and operational assessment scenarios in the ES, which cover these phases of development. In addition to the construction and operational scenarios the Applicant proposes to assess an early release of capacity to increase the current ATM cap by 25,000 ATM per year, enabling the two existing runways at the Airport to accommodate around 505,000 ATM per year.
- 2.2.9 The Airport is located in a semi-urban area with the communities of Longford, Harmondsworth, Sipson, Harlington, Cranford Cross, Cranford, Hatton, Heston Hounslow, Feltham North, Bedfont, Stanwell, Stanwell Moor, Poyle, Colnbrook, Iver and Richings Park; Brands Hill and West Drayton bordering its perimeter or within close proximity to the airport. These communities comprise a mixture of residential, industrial and commercial uses. The area is subject to a number of heritage and landscape designations as set out in Scoping Report (for example paragraph 13.6.4). It is bounded to the north by the A4, to the west by the A3044, to the east by the A30 and to the south by the southern perimeter road, the Duke of Northumberland's River and Longford River. The M25 is within 600m of its western perimeter.
- 2.2.10 Large areas of open land, parts of which are designated as greenbelt, are located within a short distance to the west and north of the Airport. The footprint of the Proposed Development falls partially within the Colne Valley Regional Park, and extends to land adjacent to the northwest of Staines Moor, part of which is designated as a Site of Special Scientific Interest (SSSI). The Airport also sits in two main river catchments, being the River Colne to the west and the River Crane to the east, and is bounded by a number of associated watercourses to the west. A number of reservoirs are located to the west and south west of the area including the Queen Mother Reservoir, Wraysbury, King George VI, Staines North and Staines South reservoirs. These waterbodies are component parts of the South West London Waterbodies Ramsar site and Special Protection Area (SPA).
- 2.2.11 As shown on Figures 2.2 – 2.4 of the Scoping Report, the Airport currently comprises two runways, four terminals and a network of taxiways and stands, along with ancillary facilities to support its operation and maintenance such as cargo storage, and other airport related development such as hotels, offices and warehouses. The existing access to the Airport is shown on Figure 2.5 of the Scoping Report.

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

- 2.3.1 The Scoping Report provides options for the principal components of the Proposed Development, such as the location of taxiways, the terminal capacity and apron space, southern access options, parkway options, the diversion of watercourses and flood compensation, and changes to the road network including the A4, A3044 and M25 realignments and changes to junction arrangements at Stanwell Moor and the M25 J14 and 14a,

(Scoping Report Figures 3.3 – 3.12). Paragraph 3.3.37 of the Scoping Report lists proposed airport supporting facilities, the potential location of which are shown in Figure 3.13.

- 2.3.2 Due to the ongoing nature of the design development, the Scoping Report lacks specific information on the characteristics of elements to the Proposed Development e.g. dimensions, elevations or final locations of various structures, the displaced uses, the highways structures required as part of the changes to the road network, the green infrastructure to be provided as mitigation and the detailed design of covered river corridors.
- 2.3.3 The Scoping Report references proposed public transport infrastructure to access the airport such as the Western Rail Link to Heathrow (WRLTH) NSIP and Southern Rail Link to Heathrow. The ES should take account of any potential overlap between the expansion proposal and proposed public transport infrastructure links, detailing the outcome of consultations with Network Rail.
- 2.3.4 Limited information is provided regarding the detail of any public utilities diversions. The Inspectorate notes that the consultation responses from Affinity Water, Cadent, ESP Utilities Group, HSE and National Grid have all identified utilities infrastructure that may be impacted by the works.
- 2.3.5 The Inspectorate appreciates that at this point in the evolution of the Proposed Development a final description may not yet be confirmed, and that there are currently different options for certain works. However, the Applicant should be aware that the description of the Proposed Development provided in the ES must be sufficiently certain to meet the requirements of the EIA Regulations. The ES must include a detailed description of all components of the Proposed Development and should include reference to the location, alignments and dimensions of each individual element, including maximum heights, design parameters and limits of deviation. Where appropriate this information should be accompanied by figures to assist the reader.
- 2.3.6 This description of the development in the ES should explain the relationship between the Proposed Development and outstanding permissions (eg for Terminal 5) or agreed works (eg works to enable the end of the Cranford Agreement) that may be incorporated into, or excluded from, the DCO application.
- 2.3.7 Chapter 2 of the Scoping Report provides a description of the existing site of the Airport and its surroundings. However, in providing information on the existing land uses, the Scoping Report focuses on the site of the Airport, rather than the existing uses on the other land parcels identified in Figure 3.1 that fall outside the Heathrow Planning Boundary. The ES should contain a description of the location of the Proposed Development, which includes existing land uses and, where relevant structures across the application site and surrounding area.
- 2.3.8 The Scoping Report acknowledges at paragraph 3.2.7 that the DCO will seek permission for “associated and ancillary development”. The

Applicant should clearly define in the draft DCO (dDCO) which elements of the Proposed Development are integral to the NSIP and which are Associated Development under the PA2008 or an ancillary matter. Any proposed works and/or infrastructure identified as Associated Development, or as ancillary to the Proposed Development (whether on or off site) should be assessed as part of an integrated approach to the environmental assessment.

- 2.3.9 Paragraph 3.3.43 of the Scoping Report states that the consenting mechanism for certain components of airport related development and replacement displaced uses has not yet been determined, and that these elements could come forward through the application for a DCO, through the local planning process and/or left to the market. The Inspectorate advises that the ES and dDCO should provide certainty as to the elements of the Proposed Development forming part of the application. Where any element of mitigation is to be relied upon for the purposes of the Proposed Development it should be brought forward through the application for a DCO and be secured in the DCO itself. The ES should include a similar plan clearly distinguishing between the land that is required for delivery of the Proposed Development through the DCO, and any land that is necessary for Associated Development or development to be brought forward through other means.
- 2.3.10 As discussed above, the scenarios to be assessed are still being developed. The Applicant should ensure that the phases of the Proposed Development, and the activities to be undertaken during each phase, are clearly explained in the ES, and consistently reflected in the aspect assessments. Where uncertainty exists and flexibility is required the assessment should be based on worst case assumptions about the duration of the construction phases, and include consideration of the potential effects of construction activities occurring in conjunction with the operational activities of the Airport.
- 2.3.11 The options development also includes a range of construction options such as the location of construction sites, borrow pits and stockpiling sites. Figure 3.17 of the Scoping Report identifies the potential temporary construction sites for the full range of construction activities listed at paragraph 3.4.16 of the Scoping Report. The Applicant should ensure that the ES provides specific information on which construction activities are to take place at the various sites identified, and should explain the length of time for which each of these elements would be required. Information should also be provided on the number, size and final location of the construction compounds, and should assess any potential significant effects from the use of construction compounds within relevant aspect assessments.
- 2.3.12 Chapter 9 of the Scoping Report raises the potential requirement for construction worker accommodation. In the interests of sustainable design, where such accommodation is proposed, the Applicant is recommended to consider the longer term use of this development e.g. as residential housing following construction.

- 2.3.13 The Scoping Report refers to the demolition of existing properties at paragraph 3.2.5 but provides limited details regarding the properties that are to be demolished. As part of the description of the physical characteristics of the Proposed Development, the ES should provide full details of the proposed demolition works and it should be clear at what point in the construction programme the demolition activities would occur. The Applicant should ensure that the ES aspect chapters assess the likely significant effects resulting from demolition activities taking into account their extent and duration.
- 2.3.14 The Scoping Report's description of the Proposed Development refers to various "upgrades" to current infrastructure at the Airport, including the central bus station, the waste water treatment network and the waste and recycling centres. It is not clear whether demolition will be necessary to enable this upgrade to existing infrastructure. The ES should clearly explain which elements of the existing infrastructure on the site would be demolished, and which would be retained and refurbished.
- 2.3.15 In addition to the above, the ES should also include a description of the anticipated:
- construction methods and activities associated with each phase of construction;
 - numbers of workers and the hours of working;
 - types of plant and machinery;
 - lighting equipment/requirements, in particular any lighting at construction compounds;
 - number, type, movements and parking of construction vehicles (both heavy goods vehicles (HGVs) and staff vehicles);
 - noise; and
 - any Construction and Environmental Management Plan or Code of Construction Practice to be drafted.

Alternatives

- 2.3.16 The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.
- 2.3.17 The Inspectorate acknowledges the Applicant's intention to consider alternatives as a discrete chapter in the ES. This should provide details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

Flexibility

- 2.3.18 The Applicant's attention is drawn to the Inspectorate's Advice Note Nine 'Using the 'Rochdale Envelope'¹, which provides details on the recommended approach to follow when incorporating flexibility into a dDCO.
- 2.3.19 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters will need to be clearly defined in the dDCO and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.
- 2.3.20 It should be noted that if the Proposed Development materially changes prior to submission of the application for development consent, the Applicant may wish to consider requesting a new scoping opinion.

Airspace Change Process

- 2.3.21 Paragraphs 1.7.3 to 1.7.12 of the Scoping Report explain the relationship between the main processes applicable to the Proposed Development. These include the DCO process administered by the Inspectorate and the Airspace Change Process (ACP), which is administered by the Civil Aviation Authority (CAA). The CAA also has responsibility for the regulatory approvals process for airport operations.
- 2.3.22 An application for development consent will be examined in accordance with the legislative requirements of the PA2008 and is primarily concerned with issues relating to powers that would be authorised by the DCO. The ACP is distinct from the DCO process and is concerned with the detailed design of airspace (including specific flight paths). Although they are distinct there is an apparent interface between the two processes particularly with regards to the location of arriving and departing planes.
- 2.3.23 Paragraph 1.7.8 states that the Scoping Report will consider the impacts of indicative flight path designs - likely geographic areas and prototype routes that are likely to become operationally viable flight path options. Precise flight path designs cannot be approved by the DCO process and

¹ Advice Note nine: Using the Rochdale Envelope. 2012. Available at:
<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

would instead be subject to extensive consultation as part of the separate ACP process.

- 2.3.24 The Inspectorate considers that the ES methodology should be compatible with the methodological approaches outlined in the CAA's CAP 1616² and CAP 1616a³ documents to ensure consistency and continuity between the two assessment processes. The ES should explain how the ES methodology for the application for development consent is compatible with the CAP methodologies.

² CAP 1616: Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements' Civil Aviation Authority, December 2017

³ CAP 1616a: Airspace Design: Environmental requirements technical annex' Civil Aviation Authority, December 2017

3. ES APPROACH

3.1 Introduction

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements'⁴ and associated appendices.
- 3.1.2 Aspects/ matters (as defined in Advice Note Seven) are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The Inspectorate notes that Chapter 3 of the Scoping Report contains tables listing the environmental aspects relevant to each of the principal components of the Proposed Development. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information available at this time. Due to the numerous options that exist at this stage in the evolution of the Proposed Development, the Inspectorate considers that it would be inappropriate to scope out certain aspects/ matters. Therefore, and for the avoidance of doubt, only those aspects/ matters acknowledged by the Inspectorate as scoped out in the Aspect Based Scoping Tables at Section 4 of this Scoping Opinion are to be deemed as scoped out of the assessment.
- 3.1.4 The Inspectorate is content that the receipt of a Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects/ matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.5 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through DCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.

⁴ Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

3.2 Relevant National Policy Statements (NPSs)

- 3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may require or refer to specific environmental measures and objectives for NSIPs, which Applicants should incorporate into the design of their Proposed Development and assess within their ES.
- 3.2.2 The Applicant's Scoping Report identifies that the proposed application comprises an NSIP under the terms of Section 22 (for works to the M25) and Section 23 (for the increased capability facilitated by the new runway and terminals).
- 3.2.3 The Applicant's Scoping Report acknowledges that there is currently no designated sector-specific NPS for airport development. The Government consulted on a revised draft Airports NPS between 24 October 2017 and 19 December 2017. The final draft Airports NPS was published on 5 June 2018 and approved in Parliament on 25 June 2018 (the Proposed ANPS). The SoS for Transport is expected to designate the Proposed ANPS imminently. The ES should take account of any specific requirements set out in the designated ANPS within the relevant aspect chapters.
- 3.2.4 The other designated NPS relevant to the Proposed Development is the NPS for National Networks (NPSNN). The Proposed ANPS states that *'if there is conflict between the Airports NPS and other NPSs, the conflict should be resolved in favour of the NPS that has been most recently designated'*.

3.3 Scope of Assessment

General

- 3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:
- to demonstrate how the assessment has taken account of this Opinion;
 - to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
 - to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
 - to describe any remedial measures that are identified as being necessary following monitoring; and

- to identify where details that are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

3.3.2 Some of the text in the Scoping Report, such as in the various figures provided, is small scale and difficult to read both on the paper and electronic copies (e.g. Figures 3.10, 3.12, 3.16 and 3.17). The Applicant is reminded that the information contained in the ES should be clearly legible and accessible to readers.

3.3.3 Table 1 of the Executive Summary to the Scoping Report identifies aspects of the assessment to be scoped out in high level terms. The information contained in the table does not particularly support the decision making process. On that basis the Inspectorate has not had regard to its information in reaching its decision on the scope of the assessment within an ES. For the same reasons only limited account has been taken of the environmental topic tables in chapter 3 of the Scoping Report. The requirement to cross reference between the summary scope of the assessment in Table 4.6 (which excludes proposed scope outs), tables in chapter 3; the actual scope of assessment in the aspect chapters; and scope development documents in the appendices has created some uncertainty in the proposed scope of assessment in the preparation of this Opinion and with the consultation bodies. Where relevant these points are addressed within the aspect tables below.

Baseline Scenario

3.3.4 The ES should include a description of the baseline scenario with and 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. The Applicant should also clearly state which developments will be assumed to be under construction or operational as part of the future baseline.

3.3.5 The Inspectorate notes that a number of baseline and future baseline scenarios have been identified at an individual aspect level and that the baseline year may differ between assessments and as relevant to the construction/ operational scenario.

Forecasting Methods or Evidence

3.3.6 Baseline datasets used to underpin assessments should be collected in accordance with recognised standards and guidance, where available and relevant. Efforts should be made to agree baseline datasets with relevant consultation bodies.

3.3.7 The ES should set out the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the

ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.

- 3.3.8 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which ensures a focus on 'significant' rather than 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.9 The Scoping Report refers at paragraph 4.2.3 to the use of professional judgement in order to determine the likely significance of effects. The application of professional judgement used within the assessment should be fully justified in the ES.
- 3.3.10 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and Emissions

- 3.3.11 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.
- 3.3.12 Further commentary is provided in relation to the assessment of waste in section 4.15 of this Opinion.

Mitigation

- 3.3.13 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific DCO requirements or other legally binding agreements.

Risks of Major Accidents and/or Disasters

- 3.3.14 The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment

should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.

- 3.3.15 Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
- 3.3.16 Further comments on the Applicant's approach to assessing major accidents and disasters are provided in Table 4.11 of this Scoping Opinion.

Climate and Climate Change

- 3.3.17 The ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.
- 3.3.18 Further comments on the Applicant's approach to assessing climate change are provided in Table 4.4 of this Scoping Opinion.

Transboundary Effects

- 3.3.19 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES.
- 3.3.20 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of another EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.21 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate recommends that the ES should identify whether the Proposed Development has the potential for significant transboundary impacts and if so, what these are and which EEA States would be affected.

- 3.3.22 Section 4.8 and paragraph 7.9.53 of the Scoping Report identifies two environmental aspects in relation to which a transboundary effect could conceivably arise – carbon (specifically greenhouse gas emissions (GHG)) and biodiversity. The Applicant concludes that the Proposed Development is not likely to have significant effects on another European Economic Area (EEA) State from GHG emissions and that it is very unlikely that the Proposed Development will have a significant biodiversity effect on the environment of any EEA State(s).
- 3.3.23 Consequently, the Applicant proposes that transboundary effects from GHG emissions do not need to be considered within the ES but that further consideration will be given to transboundary effects from impacts on biodiversity as part of the consultation regarding Preliminary Environmental Information. The Inspectorate notes the Applicant's conclusion in the Scoping Report regarding transboundary effects and recommends that, for the avoidance of doubt, the ES details and justifies this conclusion.

A Reference List

- 3.3.24 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Confidential Information

- 3.4.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2014.

4. ASPECT BASED SCOPING TABLES

4.1 Air Quality and Odour

(Scoping Report Chapter 5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
1	Table 3.6	Air quality effects on rivers and flood storage	Table 3.6 of the Scoping Report excludes operational air quality effects on rivers and flood storage. The Inspectorate considers that the potential for air quality effects on rivers and flood storage areas due to deposition of pollutants should be taken into account within the assessment, particularly where the Proposed Development has potential to give rise to stagnant or low flow conditions.
2	Table 5.9	Activities involving combustion – emissions of CO, SO ₂ , lead, benzene and 1,3 butadiene, arsenic, cadmium, nickel, mercury, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, dioxins/furans, PCBs, HCB).	The Applicant proposes to scope out the identified pollutants on the basis that previous low concentrations (2010 and earlier) mean that Local Authority monitoring has ceased and based on previous best practice guidance set out in the Project for the Sustainable Development of Heathrow (PSDH) ⁵ . However SO ₂ , NO ₂ and NO _x are identified as relevant combustion products for aviation projects by the CAA and the lack of recent baseline data to supplement the assessment undermines confidence that this position remains the same. The definition of activities involving combustion includes " <i>aircraft</i>

⁵ Project for the Sustainable Development of Heathrow - Report of the Air Quality Technical Panels. Department for Transport, 2010.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p><i>movements on the new runway and taxiways, <u>land based activities</u> in support of airport operation and road traffic"</i></p> <p>In the absence of a detailed description of what the potential sources arising from land based activities are (eg such as new generation plant and rail terminal sources), the Inspectorate considers that assessment of these pollutants cannot be scoped out at present. In addition, Biodiversity operational scope item 1 in Table 4.6 suggests that deposition of nitrogen and sulphur will be assessed for impacts on habitats and water, which would appear to contradict the need to scope out consideration of SO₂ from combustion processes.</p> <p>The Applicant should demonstrate that it is unlikely to give rise to significant air quality effects from these pollutants through the provision of a detailed screening assessment where relevant.</p>
3	Table 5.9	Activities involving combustion – Exposure to ozone (O ₃).	<p>The Scoping Report states that local emissions associated with expansion are unlikely to significantly alter background O₃ concentrations. The PDSH study identified that ozone was not a priority area for modelling the impact of Heathrow emissions.</p> <p>The definition of activities involving combustion includes "<i>aircraft movements on the new runway and taxiways, <u>land based activities</u> in support of airport operation and road traffic"</i>. In the absence of a detailed description of the land based activities, the potential for sources of ozone arising from sources such as new generation plant cannot be excluded.</p> <p>The Applicant should demonstrate that it is unlikely to give rise to significant air quality effects from this pollutant through the provision of a detailed screening assessment where relevant.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4	Table 5.9	Activities involving combustion – Increased emissions of pollutants that form secondary PM.	The Inspectorate considers that insufficient justification has been provided to scope out an assessment of secondary particulate matter, in particular the lack of description of the specific pollutants that have the potential to form secondary particulates.
5	Table 5.9	Jettisoning of fuel from aircraft in flight resulting in increased emission of aviation fuel odours causing loss of amenity at sensitive receptors under flight paths.	The Inspectorate considers that significant effects are not anticipated in relation to this matter and that it may be scoped out from further assessment. This is on the basis that jettisoning of fuel is an infrequent and abnormal event required for the purposes of operational safety with existing operational procedures in place that are designed to avoid odour effects.
ID	Para	Other points	Inspectorate's comments
6	Table 3.6 Table 4.6	Operational traffic	The list of items to be assessed in Table 4.6 includes vehicles on public highways however it is unclear whether emissions from vehicles within the operational site are proposed to be assessed. For example, Table 3.6 excludes air quality effects from car parking areas. For the avoidance of doubt the ES should include an assessment of on-airport vehicle emissions and their effect on human and ecological receptors.
7	Table 4.6	Emissions from aircraft operation	Emissions from aircraft operation are scoped in with respect to effects on human health but not for biodiversity. The Inspectorate considers that the ES should consider the potential for likely significant effects on biodiversity from aircraft emissions.
8	Table 4.6	Odour (operation)	The scope of the odour assessment focuses on construction site emissions and Volatile Organic Compounds (VOC) from aircraft. The effect of odour on sensitive receptors arising from odour

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			sources such as relocated wastewater treatment plant infrastructure and new waste and recycling centres should also be assessed in accordance with IAQM guidelines unless otherwise justified.
9	Table 5.2	Interim Advice Note (IAN)174/13 and IAN175/13	IAN174/13 excludes assessment of PM _{2.5} as it predates 1 January 2015, which is set out in The Air Quality Standards Regulations 2010 as the date by which the PM _{2.5} limit value must be met. Whilst the general principles of the IAN may be followed, the applicant should include assessment of the effects of PM _{2.5} .
10	5.4.4	12km x 11km area	<p>The Applicant proposes to predict pollutant concentrations across a 12km x 11km 'core assessment area' based on findings from previous studies. The Inspectorate considers that the Applicant should not apply an arbitrary limit to the assessment area based on previous studies, since the Proposed Development is more extensive and covers a wider geographic area than set out in those studies. The Inspectorate considers that the model extent should be defined by the area over which significant air quality effects arising from the Proposed Development may occur. This should be clearly defined within the ES.</p> <p>The ES should have regard to the Air Navigation Guidance 2017 with respect to the parameters for assessment of aviation emissions on local air quality.</p>
11	5.4.9	DMRB screening criteria	<p>The Inspectorate considers that DMRB screening criteria are appropriate for the identification of affected road links on the strategic road network.</p> <p>The ES should apply the screening criteria set out in the EPUK and</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>Institute of Air Quality Management (IAQM) 2017 guidance 'Land Use Planning & Development Control: Planning for Air Quality' (the EPUK-IAQM guidance) to identify affected road links on the urban road network.</p>
12	5.4.13-5.4.14	Assessment of compliance with EU limit values	<p>These paragraphs suggest that the 'assessment methodology will focus on the incremental change in road traffic related NO₂ concentrations as a result of the DCO Project'. The ES should consider and model concentrations of other relevant vehicle emissions such as PM₁₀ and PM_{2.5}. In addition, as currently written, the text appears to exclude consideration of airport emissions from the compliance assessment. For the avoidance of doubt the Inspectorate considers that these should be included within the assessment.</p>
13	5.5.7 - 5.5.8	Baseline PM, dust and odour surveys	<p>The Inspectorate notes that it is not proposed to include supplementary baseline monitoring for PM or NO₂ since these are routinely monitored in the area by the Applicant and the Local Authorities. In light of the extended nature of the development (eg including areas proposed for flood storage and borrow pits) that fall outside the immediate Heathrow area, the ES should include baseline monitoring for the wider study area where relevant. The Applicant should make effort to agree the final scope of such monitoring with relevant consultation bodies once the footprint of the Proposed Development has been confirmed. The ES should document the proposed method of data collection, which should be conducted in accordance with recognised standards.</p> <p>The baseline data within the ES should be up to date and represent the entire study area, details such as the location of</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>monitoring stations and the extent of air quality management areas (AQMA) should be confirmed with the consultation bodies. The air quality monitoring should draw on the data held within the London Air Quality Network and from adjacent local planning authorities, identifying any areas of localised poor air quality (eg M25, M4). Efforts should be made to agree the scope and extent of air quality baseline datasets and model validation requirements with the relevant local planning authorities where possible, drawing on existing local authority monitoring supplemented by additional monitoring where necessary. Baseline datasets should comprise a minimum 6 months of data. The odour and dust baseline dataset should be supported by any complaints history information.</p> <p>The Scoping Report proposes that PM, dust deposition and odour surveys will be undertaken in advance of the construction programme. The Applicant should ensure that the draft CEMP includes sufficient provision for pre-construction monitoring consistent with the relevant Institute of Air Quality Management (IAQM) guidance. The ES should describe the methodological approach to be adopted for each of the proposed studies.</p>
14	5.7.2	Deposition of SO ₂	<p>It is proposed that deposition of sulphur is scoped out from consideration of eutrophication, since sulphur levels are very low in the area and adjacent to the road network. This approach excludes the potential for deposition of sulphur from other sources eg rail. The ES should screen the potential effect of sulphur deposition from all relevant sources including rail and consider their potential for in-combination effects.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
15	Table 5.8	Vehicular traffic associated with the operational airport	The operational assessment should include consideration of non-combustion PM sources eg brake and tyre linings as well as direct emissions from vehicle exhausts.
16	Table 5.8	Emissions of PM from aircraft	The operational assessment should consider the potential for PM emissions from non-combustion sources, such as the wear of brake linings and tyres.
17	5.9.17 5.9.31	Assessment of odour in accordance with IAQM Guidance on the assessment of odour for planning 2014.	The Scoping Report states that dispersion modelling would not enable an evaluation of significant effects associated with increased Volatile Organic Compound (VOC) odour therefore, in accordance with IAQM guidance, a semi-quantitative approach to the assessment will be undertaken. The ES should fully justify the approach, including detailed justification for not undertaking dispersion modelling.
18	5.9.25	Assessment of significance	<p>The Inspectorate considers that DMRB significance criteria are appropriate for the identification of affected road links on the strategic road network. Criteria for exposure to PM_{2.5} should be set out since these are not specifically addressed within DMRB.</p> <p>The ES should apply the significance criteria set out in the EPUK-IAQM guidance or similar to identify affected road links on the urban road network.</p> <p>Where the Proposed Development will give rise to non-vehicular emissions (such as those arising from on-site energy generation), the relevant sector specific guidance produced by the Environment Agency should inform the assessment criteria where necessary.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
19	5.10.1 – 5.10.3	Draft Code of Construction Practice (CoCP)	The ES should demonstrate how the measures set out within the draft CoCP will be secured e.g. by providing cross references to the relevant draft DCO requirement.
20	5.10.3	Rail freight	Whilst the Inspectorate acknowledges that use of rail freight has potential to reduce vehicle related air quality impacts, the scope of assessment should screen the potential for increased rail freight emissions to give rise to air quality impacts during construction and operation, including emissions of SO ₂ .
21	Appendix 5.1, 1.4.2	Use of the National Atmospheric Emissions Inventory (NAEI)	The air quality assessment currently proposes to use the NAEI dataset, the ES should be based on the most relevant information available, for example the London Atmospheric Emissions Inventory as highlighted by TfL. Robust justification should be provided if alternative datasets are relied on for the purposes of the assessment.
22	Appendix 5.1	Precise approach for derivation of annual mean NO ₂ concentrations will be developed in accordance with government guidance available at the time of the assessment and agreed with the Air Quality Expert Review Group (AQERG).	The ES should document any assumptions used in the derivation of NO ₂ concentrations.

4.2 Biodiversity

(Scoping Report Chapter 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
23	Section 6.8, Tables 6.11 and 6.12	Adverse effects (including cumulative) on ecological features of local and negligible importance, as these would not be considered 'significant'	<p>The Scoping Report does not provide sufficient justification as to why it intends to deviate from the CIEEM industry standard guidance for ecological impact assessment by not considering effects on ecological features of local importance. It also does not contain specific information on the types of habitats and species which would be considered to be of local or negligible value.</p> <p>In the absence of specific information on the likely ecological features of local and negligible importance, including cumulative effects on such features both within the Proposed Development and from other projects or plans, together with the scale of the Proposed Development which could result in effects such as local extinctions of a species/habitats, the Inspectorate does not agree to scope this matter from the assessment. Accordingly the ES should include an assessment of effects on ecological features of local importance arising from the Proposed Development, including cumulative effects, or provide adequate justification in the ES as to why effects on any ecological features of local importance subsequently identified would not be considered to be significant.</p> <p>The ES and/or accompanying appendices should identify the species and habitats to be included in the biodiversity offsetting metric, including those considered to be of local/negligible importance.</p>

ID	Para	Other points	Inspectorate's comments
24	Section 6.3	Evidence Plans and Stakeholder Engagement	<p>The Inspectorate welcomes the Applicant's intention to use an evidence plan process to seek agreements with relevant stakeholders with regards to the biodiversity assessment. The Applicant should seek to agree the type and level of evidence to be collected to inform the assessment in respect of biodiversity, together with approaches to the assessment methodology. Evidence of agreements reached in respect of the ecological impact assessment should also be provided with the ES, where possible.</p>
25	Paragraphs 6.4.1 to 6.4.3, paragraph 6.9.12, Figures 6.1, 6.2 and 6.10	Study area and Zone of Influence	<p>The Inspectorate notes that the biodiversity study area presented in Figure 6.1 and Baseline Data Collection Area presented on Figure 6.2 do not include the waterbodies identified as part of the survey area for wintering birds, in particular the Wraysbury complex of waterbodies, Kingsbury, and South Horton, as presented on Figure 6.10. The ES should present the final biodiversity study area on clear figures consistent with the biodiversity scope of assessment.</p> <p>The assessment study area should be applicable to the likely zone of influence (Zol) of the Proposed Development, the potential for likely significant effects and the relevant ecological feature concerned. The Inspectorate acknowledges that the Zol may vary by ecological feature and type of effect. The ES should consider all ecological features of importance that could be significantly affected by the Proposed Development within the Zol, including, but not limited to, species and habitats that could be affected as a result of hydrological-links to the Proposed Development, species and habitats sensitive to air quality changes, and more mobile species.</p> <p>The Applicant should review and amend the Zol, as necessary, as</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>the design of the Proposed Development evolves prior to any DCO application to ensure that all ecological features of importance that could be significantly affected by the Proposed Development have been identified and assessed in the ES. The Applicant should ensure the desk study information used to inform the assessment is also informed by the ZoI and updated accordingly.</p> <p>The biodiversity aspect chapter should include appropriate and specific cross-references to any studies presented elsewhere in the ES (eg to any hydrology or air quality modelling) that have been used to determine the ZoI for ecological features.</p>
26	Table 6.3	Study Area for air quality effects	<p>The Inspectorate notes that all SSSIs within 2km of the biodiversity study area have been identified in the Scoping Report. This 2km search area is stated to have been determined through precautionary professional judgement. In respect of European sites, footnote 19 explains that a search area of 20km has been applied on the basis of "<i>road traffic modelling accompanying the Airports Commission Final Report (July 2015) as nitrogen deposition associated with road traffic accessing/egressing the airport will need to be addressed within the HRA</i>". The Scoping Report does not make clear why a 2km buffer is appropriate for SSSIs and other ecological features of importance potentially sensitive to air quality effects.</p> <p>The ES should consider all SSSIs beyond 2km where likely significant effects could occur on SSSI features sensitive to changes in air quality which could arise from the Proposed Development (ie within the ZoI for the Proposed Development). This should include an assessment of all sources of air quality</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			changes from the Proposed Development and also cumulatively, as appropriate. The ZoI should be identified in conjunction with the air quality aspect chapter to determine the distance of search. The Applicant should make efforts to agree the approach to assessing air quality effects on European sites and SSSIs with relevant consultation bodies (eg Natural England), where possible.
27	Paragraph 6.6.5	Survey access	<p>The Inspectorates notes the following statement in the Scoping Report "<i>Areas where survey has not been possible pre-application, or planned activities have been curtailed, will be highlighted at later stages of the DCO Project, with suitable mitigation measures dealing with this issue suggested and discussed with consultees.</i>"</p> <p>The Applicant must ensure that sufficient baseline information has been obtained to inform the assessment of effects and mitigation within the ES.</p>
28	Paragraph 6.6.15	Main River and ordinary watercourse classification	Any open water assessed in the ES should be clearly identified and classified by type (eg Main River, ordinary watercourse, lake, ditch) and the applicable survey methodology clearly stated (eg River Corridor Survey, Ditch Habitat Survey). The ES should also clearly identify where a river/stream becomes a ditch with regards to Main River and ordinary watercourse classification. The ES should be supported by clear figures in respect of water bodies.
29	Paragraphs 6.6.9 to 6.6.11,	Ancient woodland and veteran trees	The ES should clearly identify any ancient woodland (including Ancient Semi-Natural Woodland (ASNW) and Plantation on Ancient Woodland Sites (PAWS)) and veteran/aged trees that

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Table 6.1, Table 6.4, and Appendix 6.1 – Section 4: National Vegetation Classification Survey Methodology and Programme.		<p>could be affected by the Proposed Development and ensure they are valued and assessed in the ES, where significant effects could occur. The ES should also clearly identify and assess any ancient woodland and/or veteran trees that do not already form part of a designated site, together with any veteran/aged trees that do not already form part of ancient woodland.</p> <p>The Applicant's attention is also directed to the additional guidance documents identified on pages 2 to 3 of the Forestry Commission's response (see Appendix 2). The Applicant should consider the applicability of these documents when compiling the ES.</p> <p>The Inspectorate recommends the Applicant seek the advice of relevant consultation bodies (including the Forestry Commission and Natural England) with regards to potential significant effects on ancient woodland (including ASNW and PAWS) and veteran/aged trees, including any proposed compensation and/or offsetting measures for such effects.</p>
30	Paragraph 6.6.18 and Appendix 6.2	Notable Plant Species	<p>Paragraph 6.6.18 of the Scoping Report states that no plant species listed in Schedule 8 of the Wildlife and Countryside Act have been identified during the desk study or surveys undertaken in 2017; however, Appendix 6.2 identifies the presence of Bluebell in the study area. The Inspectorate acknowledges that Bluebell is identified in Schedule 8 as protected from sale only; however, the ES should be clear with regards to the protected status of the species assessed.</p> <p>The Applicant's attention is also directed to the comments of Spelthorne BC with regards to the presence of Brown Galingale in seedbank on Shortwood Common, which is listed in Schedule 8 of</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the Wildlife and Countryside Act. The ES should include an assessment of effects on any notable plant species arising from the Proposed Development, where significant effects are likely to occur.
31	Table 6.10	Likely significant effects – effects on riparian habitat and lateral connectivity (construction)	The ES should also consider any likely significant effects on riparian habitat and lateral connectivity as a result of activities associated with the realignment/diversion/modification of river/stream channels during construction.
32	Table 6.10	Likely significant effects – surface water run-off (operation)	The ES should consider effects on ecological features arising from changes to surface water run-off during operation (such as increased flow due to increased impermeable surfaces, as identified in Table 18.8 of the Scoping Report), where likely significant effects could occur. The Biodiversity aspect chapter of the ES should include appropriate cross-reference to the information and assessment in the Water aspect chapter.
33	Table 6.10 and Appendix 6.4: Biodiversity offsetting strategy	Likely significant effects – provision of biodiversity habitats around Heathrow through the establishment and management of the green infrastructure approach (operation)	The ES should clearly state the likely effectiveness and deliverability of the proposed measures associated with the provision of biodiversity habitats.
34	Table 6.10	Likely significant effects – effects to off-site ecological features arising from the displacement of users of existing green space	The ES should consider any likely significant effects associated with increased recreational pressure on ecological features/sites of importance as a result of displaced users of existing green space to be lost to/affected by the Proposed Development. The

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		(construction and operation)	<p>ES should include appropriate cross-reference to other relevant aspect chapter assessments in this regard, including the Community chapter and the proposed Open Space Assessment.</p> <p>The Applicant's attention is also drawn to the comments of South Bucks DC with regards to a mitigation strategy currently under development in respect of recreational pressure at Burnham Beeches Special Area of Conservation (SAC).</p>
35	Table 6.10	Creation of new flood storage areas and wetland habitats	<p>The creation of new flood storage areas and wetland habitats identified within the Scoping Report to the north of Heathrow Airport has potential to increase bird-strike risk. Design of new wetland habitats should minimise their attractiveness to species of birds hazardous to air traffic.</p>
36	6.9.6	Worst case scenarios – temporal scope	<p>The Inspectorate notes the intention to assess a worst-case for the 'majority of features' during construction. The ES should clearly state the assumptions used for the biodiversity assessment for each receptor/likely significant effect.</p>
37	General	Connectivity	<p>The ES should ensure that ecological connectivity is adequately considered and assessed, including effects on the existing connectivity (including hydrological links) and connectivity to and from any proposed offsetting/compensatory habitat to be provided. The Applicant should consider how value associated with connectivity could be taken into account in the biodiversity offsetting metric approach.</p>
38	General	Mitigation	<p>The Inspectorate notes the intention to include the detailed design of mitigation measures in the ES but to also include a holistic approach to project design and mitigation/compensation</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			design in the biodiversity offsetting metric. Measures to be provided to mitigate impacts predicted through the EIA process should be clearly stated in the ES and secured in the draft DCO, as appropriate. The ES should clearly identify significant effects that are to be mitigated and those that are to be included as part of a compensation and/or biodiversity offsetting approach.
39	General	Monitoring	<p>Where monitoring of habitats and species is identified for the purposes of mitigation/compensation/enhancement, the ES and/or associated appendices should clearly set out the monitoring proposals, including: methods to be used; appropriate timings; criteria for determining success/failure; mechanisms for implementation; and frequency and duration of monitoring, feedback and reporting.</p> <p>The Applicant should ensure that monitoring measures to be included for the purposes of the EIA are appropriately secured in the draft DCO.</p>
40	Appendix 6.1: Biodiversity Method Statements Paragraph 11.3.8	Electro-fishing survey methodology	The Applicant's attention is drawn to the comments of the Environment Agency in Appendix 2 of this Opinion confirming that more than three electro-fishing runs may be necessary to obtain worthwhile analysis.
41	Appendix 6.1: Biodiversity	Survey methodologies and referencing	The ES and/or accompanying appendices should describe in detail the survey methodology/technique used to inform the ES, particularly where new or novel techniques have been applied

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Method Statements Paragraphs 11.3.11 to 11.3.13		(for example eDNA techniques). The ES and appendices should also provide the reference for any survey guidance that has been followed.
42	Appendix 6.2: Biodiversity Desk Study Report Table 6.2.8	Habitats of Priority Importance - riverine priority habitat	The River Crane (Priority Habitat) and River Colne (Priority for Restoration) should also be included within Table 6.2.8 and assessed in the ES.
43	Paragraphs 6.9.11, Table 6.11, and Appendix 6.4: Biodiversity offsetting strategy	Biodiversity offsetting for ecological features of local/negligible importance	<p>The Inspectorate notes at Paragraph 6.9.11 and Table 6.11 of the main body of the Scoping Report that the Applicant intends to consider any negative residual effects on ecological features of local/negligible importance in the Biodiversity Offsetting Metric.</p> <p>As stated at point 1 above, the ES should clearly identify all species and habitats that are to be accounted for in the biodiversity offsetting metric. The information regarding features of local/negligible importance will also need to be presented in the ES and/or accompanying appendices, where such features are to be included in the biodiversity offsetting metric to ensure they have been adequately considered.</p>
44	Appendix 6.3: Biodiversity offsetting	Biodiversity Offsetting	The ES should include sufficient detail with regard to the proposed compensation areas, including clear figures, together with the detailed calculations that have been used for the biodiversity offsetting metric. Any mitigation/compensation

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	strategy		measures relied upon in the ES should be appropriately secured through the draft DCO.
45	General point for the ES and Appendix 6.3: Biodiversity offsetting strategy	Existing mitigation/compensation	<p>The ES should clearly identify where any of the existing habitat that would be affected by the Proposed Development has previously been allocated as mitigation/compensation land for other development and consider what influence this would have on the assessment of likely significant effects and the proposed biodiversity offsetting metric approach.</p> <p>The Applicant's attention is drawn to the comments of eg Surrey CC and LB Hillingdon with regards to land within the Scoping Report study area that has been restored or used as mitigation for other development.</p>

4.3 Carbon and other Greenhouse Gases

(Scoping Report Chapter 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
46	7.9.22 - 23	Exclusion of CO ₂ emissions from arriving flights	The Inspectorate recommends that the ES assesses the impact on arriving flights to the extent that the new airspace design affects the arriving traffic consistent with the CAP1616a requirements.
47	Table 3.7	Airport supporting facilities	Table 3.7 indicates that the identified airport supporting facilities are not relevant to this aspect of the ES, apart from energy generation plant. The Inspectorate advises that airport supporting facilities should not be scoped out of the GHG emission calculations for this aspect of the ES until it can be demonstrated that these facilities do not give rise to a significant effect, for instance in combination with other elements of the Proposed Development.
ID	Para	Other points	Inspectorate's comments
48	7.9.3- 7.9.7	Approach to assessment of effects – temporal scope	The temporal scope of the assessment for the construction and operational phases for this aspect of the Proposed Development is anticipated to be 2021-2050. The ES should justify the choice of peak construction and operation years selected for the assessment of emissions scenarios.
49	7.7 Table 7.5	Likely significant effects requiring assessment	The Inspectorate recommends that loss of vegetation including trees and woodland should be included in the GHG calculations used for assessment. The Forestry Commission's response is highlighted in this respect.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
50	7.9.8 - 7.9.10 Graphic 7.1	Assessment scenarios – future improvement assumptions	The Scoping Report highlights anticipated decreases in GHG emissions from improvements in the aviation sector in aircraft engine fuel consumption efficiencies, the adoption of biofuels, or improved airspace design in future. The assumptions and uncertainties regarding future improvements scenarios, including any sensitivity analysis, should be clearly set out in the ES, in order to understand the reliance placed on such measures in assessing likely significant effects.
51	7.9.18 – 7.9.31	Methodology - emissions from aircraft operations	As highlighted by the CAA in their consultation response, the Inspectorate advises that the impact from annual total tonnage of CO ₂ emissions from aircraft operations should be presented. The ES should consider these emissions in the wider context of the UK carbon budgets and climate change obligations.
52	7.9.30 - 7.9.31	Methodology – CAP1616	In line with the methodology used for CAP1616, the ratio for conversion of aviation fuel burn to CO ₂ should be 3.18 as highlighted by the CAA in their consultation response.

4.4 Climate Change

(Scoping Report Chapter 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
53	8.8	Effects not requiring assessment	The Scoping Report states that no effects have been scoped out of the in-combination climate change impacts (ICCI) and climate change resilience (CCR) assessments but that Stage 1 of the ICCI assessment will consider all aspects (topics) and will determine which aspects remain scoped in for detailed assessment and which are scoped out. Any aspects or matters subsequently scoped out of the assessment should be fully justified within the ES and efforts made to agree these with relevant consultation bodies.
ID	Para	Other points	Inspectorate's comments
54	8.3 Table 8.2	Stakeholder engagement with statutory consultation bodies	The Inspectorate notes that the Applicant has consulted the Environment Agency regarding the proposed approach with respect to the water environment and intends to consult with the Heathrow Strategic Planning Group (HSPG). The Applicant should ensure that other consultation bodies with statutory responsibilities for other assessment aspects (eg biodiversity), such as Natural England, are consulted regarding the potential for climate change effects to influence the effectiveness of any proposed mitigation measures.
55	8.5 8.6, 8.9	Baseline conditions – UK Climate Projects (UKCP)09 and UKCP18	The ES should take into account the potential impacts of climate change using the latest UKCP available at the time of preparation. This should include where appropriate the anticipated UKCP18

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Table 8.1 Appendix 8.1.		projections.
56	8.6 3.4.21	Assessment of decommissioning of infrastructure elements	<p>The Inspectorate notes that based on the nature of the Proposed Development, for the purpose of the climate change assessments its operational period is estimated as being 100 years.</p> <p>The Scoping Report describes the use of "<i>intermediate timeframes</i>" to allow consideration of infrastructure elements with more short-lived operational periods. The Inspectorate advises that the ES includes details of any infrastructure elements predicted to be decommissioned over a shorter time period and give consideration to the potential for likely significant effects to arise in relation to these elements.</p>
57	8.6.8 – 8.6.11	Future climate baseline	The ES should set out the assumptions and uncertainties in the projections and explain how these have informed the climate change risk and resilience assessments and influenced the design of the Proposed Development.
58	8.7 Tables 8.3 - 8.4	Likely significant effects requiring assessment	The ES should explain the duration of any temporary effects, ensuring consistency with the other aspect assessments.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
59	8.9 Tables 8.3 - 8.8	Study area and methodology – initial ICCI assessment and CCR assessment	Paragraph 8.9 notes that the as the DCO project is refined the study areas will be confirmed. The final study areas for the ICCI and CCR assessments should encompass the Proposed Development and any Associated Development that the Applicant tends to include within its application for development consent.
60	8.9.26 8.9.50 8.10	Mitigation measures	<p>The Inspectorate advises that the ES should clearly explain which mitigation measures would be 'embedded' and which would comprise further or additional mitigation including those incorporated into the Climate Change Adaptation Plan which is intended to be included in the application for development consent. The ES should set out how mitigation measures will be secured through the DCO.</p> <p>The ES should describe how the adaptation measures incorporated into a Climate Change Adaptation Plan will address the need for on-going review of climate "hazards" and risks</p>

4.5 Community

(Scoping Report Chapter 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
61	Table 3.7 (Chapter 3)	Airport supporting facilities	Table 3.7 indicates that the airport supporting facilities are not relevant to this aspect of the ES, apart from the proposed new cargo floor space and car parking. The Inspectorate advises that insufficient justification has been presented to scope this matter out from further assessment and is therefore not scoped out.
ID	Para	Other points	Inspectorate's comments
62	9.7 9.9 Table 9.5 & Table 9.6	Proposed approach to assessment of likely significant effects - sensitivity criteria	<p>The Inspectorate notes that the sensitivity criteria in Table 1.2 of Appendix 9.1 give two examples of matters that could indicate user sensitivity, whereas Table 9.8 of the Scoping Report combines these examples into a single criterion with the addition of the word "and". This potentially reduces the number of receptors that may fall within a sensitivity category.</p> <p>The ES should ensure that the methodology does not exclude receptors from consideration or reduce their assessed sensitivity</p>
63	9.10	Mitigation measures	<p>The ES should explain how the design of any green infrastructure to mitigate the effects of the Proposed Development will be incorporated into the network of existing green infrastructure which may be used by the community for recreational purposes.</p> <p>Mitigation for significant adverse impacts on the existing green infrastructure network (eg including increased recreational pressure), other areas of open space, and to public access to National Trails such as the Colne Valley Trail, and other public</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			rights of way that are used as recreational facilities, should be clearly set out in the ES and secured within the dDCO.
64	9.10.11	Transitional effects on the provision of public services	<p>The Scoping Report indicates that mitigation of any significant effects on the provision of public services, related to temporary employment generated during the construction phase of the Proposed Development, would be limited to 'transitional' effects. These effects are not made explicit as to their nature or duration, and should be clearly set out in relation to the assessment of likely significant effects and any mitigation that may be required.</p> <p>The ES should address the potential for significant effects on public services to arise due to the provision of new worker accommodation including houses of multiple occupancy, where relevant.</p>

4.6 Economics and Employment

(Scoping Report Chapter 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
65	Table 10.7	Increased trade, FDI and Tourism to the UK as a result of improved connectivity and aviation capacity	The EIA Regulations require an assessment of likely significant effects on population. The Scoping Report requests to scope out effects associated with increased trade, FDI and tourism however, the proposed methodology for the assessment includes consideration of policy positions and socio-economic objectives of local and regional authorities. The Scoping Report does not explain the extent to which any of the matters set out in Table 10.7 account for the objectives at a local and regional authority level. On this basis, the Inspectorate considers that these matters should be assessed where relevant to that methodology.
66	Table 10.7	Effect on property value and availability	The Applicant states that it is not possible to estimate " <i>empirically</i> " the quantitative effect of this Proposed Development on the wider property market because of the scale of the development and uncertainties due to the length of construction and operational periods. The Applicant however accepts that there will be effects on property and compensation will be made available to eligible parties. The ES should clearly explain how the compensation payments will mitigate the likelihood of significant effects.
ID	Para	Other points	Inspectorate's comments
	10.9.11	Projections of economic and demographic change at	The ES should set out details of economic projections applicable to the Proposed Development and the construction and operational scenarios applicable to the DCO, for the assessment as well as

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		assessment years	any assumptions or limitations with the projections.
68	10.9	Mitigation	The ES should explain the Applicant's strategy for securing the delivery of employment and apprenticeship opportunities.

4.7 Historic Environment

(Scoping Report Chapter 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
69	11.8	Effects not requiring assessment	<p>The Applicant intends to scope out effects on the setting of heritage assets during the construction phase within a 'wider study area' as it is considered that likely significant environmental effects will only arise as a result of "<i>perceptual change</i>" to the setting of heritage assets during operation of the Proposed Development and only in relation to heritage assets that are considered sensitive to changes in noise levels and vibration.</p> <p>The Inspectorate agrees in principle that effects on the setting of heritage assets within the wider study area due to construction activities within the 'core study area' can be scoped out due to distance from the site boundary of the Proposed Development. However, the wider study area, as discussed in paragraph 11.4.5, should be clearly defined and the ES should assess the potential for adverse effects on heritage assets and their setting from noise and vibration from construction vehicles once the haul routes for these vehicles are clarified. This assessment should also include noise and other adverse effects from any increased aircraft movements during the construction phase. This assessment of potential adverse effects could be done for example through cross referencing to the noise and vibration and transport assessments supporting the ES.</p>

ID	Para	Other points	Inspectorate's comments
70	11.4	Study area	<p>The potential for significant effects from airport operations on the settings of heritage assets beyond the 'core' study area and also within the Zone of Theoretical Visibility (ZTV) should be considered in the ES.</p> <p>The study area should consider the inclusion of the Grade I Registered Park (Windsor Forest and Great Park) for assessment as this is located immediately outside the western limit of the study area within Surrey and the Royal Borough of Windsor and Maidenhead, and the Grade II Registered Park (Ditton Park) located within the borough of Slough.</p>
71	11.9	Proposed approach to the assessment	<p>The ES should set out the Applicant's proposed methodology for developing and implementing an archaeological research framework from the early stages of the project through to completion. This should include a commitment to analysis, publication and museum archiving. The ES should demonstrate how archaeological investigations to support the application for development consent have informed the methodology. The ES should set out how these commitments will be secured through the DCO.</p>
72	11.9.19	Assessment of likely significant historic environment effects during peak earthworks and peak above ground infrastructure construction	<p>The Inspectorate does not consider that peak earthworks or above ground infrastructure necessarily correlate with the worst case for the assessment of historic environment effects, since effects will relate to the sensitivity of a heritage feature and the extent of direct or indirect impacts on that feature. The construction assessment should consider the period in which the most substantial impacts arise to the most sensitive and greatest number of features.</p>

ID	Para	Other points	Inspectorate's comments
	11.10	Mitigation and enhancement measures	<p>The Inspectorate considers that the approach to mitigation section should emphasise the need to preserve heritage assets in-situ, where possible and appropriate.</p> <p>The Applicant should make effort to agree mitigation approaches with relevant consultation bodies.</p>

4.8 Health

(Scoping Report Chapter 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
74	Table 3.6	Rivers and flood storage	The Scoping Report proposes to scope out the assessment of health impacts associated with rivers and flood storage out of the environmental assessment. The Inspectorate considers that insufficient information has been provided to justify the scoping out of this matter at this stage. Where significant effects are likely to occur, this should be assessed within the ES.
75	Table 3.7	Aviation fuel storage facilities	The Scoping Report proposes to scope out the assessment of health impacts associated with aviation fuel storage facilities out of the environmental assessment. The Inspectorate considers that insufficient information has been provided to justify the scoping out of this matter at this stage. Where significant effects are likely to occur, this should be assessed within the ES.
76	12.8	Health impacts associated with a changing global climate	The Scoping Report proposes to scope this matter out of the health assessment as a climate change assessment will be undertaken to consider resilience to global climate change and the measures that will need to be taken to adapt to climate change. The Inspectorate is satisfied that health impacts associated with changes to the global climate (as a result of the Proposed Development only) can be scoped out of the health assessment but would expect to see adequate cross-referencing and signposting to the matter within the health chapter of the ES.
77	12.8	Risks to construction workers from exposure to contamination	The Scoping Report proposes to scope this matter out of the health assessment as this will be addressed in the land quality

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		in soil	assessment. The Inspectorate is satisfied with this approach but would expect to see adequate cross-referencing and signposting to the matter within the health chapter of the ES.
78	12.8	Outbreaks of communicable diseases	The Scoping Report proposes to scope this matter out of the health assessment as the operational control measures that are currently in place are expected to continue to apply to the Proposed Development. The Inspectorate does not consider that sufficient information has been provided to justify the scoping out of these matters at this stage. The Applicant must provide an in-depth justification for such scoping out, including an explanation of the current systems, controls, procedures and requirements that are currently in place to address these matters. Where significant effects are likely to occur, this should be assessed within the ES
79	12.8	Emergency response measures to potential man-made and natural disasters	The Scoping Report proposes to scope this matter out of the health assessment as this is to be reported in the Major Accidents and Disasters section of the ES. The Inspectorate is satisfied with this approach but would expect to see adequate cross-referencing and signposting to the matter within the health chapter of the ES.
80	12.8 12.8.3	Effects to population health from water quality due to the Proposed Development	The Scoping Report proposes to scope this matter out of the health assessment as this is to be regulated by the Environment Agency as part of the consenting process. The Inspectorate is satisfied with this approach but would expect to see adequate cross-referencing and signposting to the assessment of water quality within the health chapter of the ES.
81	12.8	Effects to population health from	The Scoping Report proposes to scope this matter out of the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	12.8.3	flooding due to the Proposed Development.	health assessment as this is to be regulated by the Environment Agency as part of the consenting process. As flooding could create a public health emergency in the area, and a perceptual risk of flooding along local communities could lead to impacts on health, the Inspectorate does not consider that enough information has been provided at this stage to demonstrate that there are no likely significant effects in this regard. Where significant effects are likely to occur, this should be assessed within the ES and mitigation proposals such as a flood risk management plan and the interaction of the Applicant with emergency services should be presented.
82	12.8 12.8.3	Effects to population health from hazardous waste due to the Proposed Development	The Scoping Report proposes to scope this matter out of the health assessment as this is to be regulated by the Environment Agency as part of the consenting process. The Inspectorate is satisfied with this approach but would expect to see adequate cross-referencing and signposting to the waste assessment and land quality within the health chapter of the ES.
83	12.8 12.8.4	Pest control measures	The Scoping Report proposes to scope this matter out of the health assessment as this will be covered by standard construction practice that will be followed, and reviewed by the relevant local planning authorities. The Inspectorate does not consider that enough information has been provided to demonstrate that there are no likely significant effects in this regard. The Applicant must provide an in-depth justification for such scoping out, including an explanation of the current systems, controls, procedures and requirements that are currently in place to address these matters. Where significant effects are likely to occur, this should be assessed within the ES.

ID	Para	Other points	Inspectorate's comments
84	12.1.9	Determinants of health and well-being	The Inspectorate welcomes the Applicant's intention to examine the ecological determinants of health and well-being shown in Graphic 12.1 of the Scoping Report in its assessment of human health. The Applicant should ensure that the ES also examines the social determinants of health and well-being, to include living and working conditions, social and community networks, and individual lifestyle factors.
85	12.3.4	Stakeholder engagement	The Inspectorate welcomes the Applicant's engagement with Health and Wellbeing Boards, Clinical Commissioning Groups and health trusts, as set out in Table 12.2 of the Scoping Report. The ES should clearly set out which specific trusts, board and clinical commissioning groups the Applicant has engaged with, and the outcome of such engagement.
86	12.3.4	Stakeholder engagement	Table 12.2 of the Scoping Report states that the Applicant has engaged with owners and operators of ' <i>specific facilities that are impacted by the project</i> '. The ES should clearly set out which facilities this refers to and the outcome of such engagement.
87	12.4.5	Study area	The Applicant states that the study area will vary depending on which determinant is being assessed. It should be clear in the text of the ES which study area is being applied to each determinant and effect in the assessment of health impacts. This should include a clear cross reference to the relevant sections of other chapters and, where relevant, the supporting plans in order to assist the reader.
88	12.5.2,	Baseline	The Scoping Report states that baseline data collection is on-going. The ES should clearly set out all studies and surveys

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	12.9.4		undertaken to inform the final baseline dataset, including a description of the current health and community facilities within the study area. The Applicant should seek to agree its approach with the relevant consultation bodies. The ES should present the likely changes in health facilities and infrastructure within the relevant study area in the future baseline scenario, outlined in the Scoping Report as the full year of operations prior to the opening of a third runway.
89	12.7	Likely significant health effects – light pollution	Table 12.3 of the Scoping Report only identifies light pollution from the Proposed Development as a potentially significant effect during construction. The Inspectorate does not consider that enough information has been provided to demonstrate that there are no likely significant effects in relation to light pollution during operation. Where significant effects are likely to occur, this should be assessed within the ES.
90	12.7	Likely community health impacts – electromagnetic fields	The Scoping Report does not assess the health impact associated with electromagnetic fields around elements of the Proposed Development such as cabling. The Inspectorate does not consider that enough information has been provided to demonstrate that there are no likely significant effects in relation to electromagnetic fields at this stage. Where significant effects are likely to occur, this should be assessed within the ES.
91	12.7, 12.9.24	Receptors	The Scoping Report outlines that the general population scope of the health assessment considers residents of, and visitors to-, local communities, the workforce and passengers of the Airport, and construction workers for the Proposed Development. It then states that the focus of the health assessment is on 'community effects'. It is therefore unclear whether the assessment of health impacts will in practice be limited to local communities. The ES should contain an in-depth explanation of the approach to

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			identifying the receptors forming part of the assessment, taking into account the various study areas applicable to the assessment of health impacts. Where this information is set out in another ES chapter, the Applicant should ensure there is adequate cross referencing and signposting to aid the reader.
92	12.9.1	Study area	The Scoping Report states that the various study areas to be used in the assessment of health impacts are to be kept under review as the design of the Proposed Development progresses. The ES should clearly evidence and justify the final extent of the study area used in the assessment of health impacts. Where this information is set out in another ES chapter, there should be adequate cross referencing and signposting to aid the reader.
93	12.9.7	Baseline	The Scoping Report states that the baseline to be used for most matters considered in the health assessment will be 2016. The ES should include justification for the selected baseline year.
94	12.9.7	Assessment years	The Scoping Report states that construction effects will be assessed at the point where “maximum environmental effects” are experienced. The ES should ensure that the assessment takes account of the different phases of the Proposed Development and the different impacts each phase could have on different receptors, including the early release of ATMs. For the purposes of the health assessment, the Inspectorate recommends that the assessment years mirror those in the air quality, noise and traffic and transport assessments as closely as possible. The ES should thoroughly justify the assessment years chosen and ensure that the worst case scenario has been assessed on all identified receptors.
95	12.9.10	Assessment methodology	The assessment methodology should be based on up to date and relevant information including tools prepared by the NHS London

			Healthy Urban Development Unit where applicable. The Applicant's attention is drawn to the Hillingdon Clinical Commissioning Group consultation response in this regard.
96	12.9.13	Health pathways	The Scoping Report states that the source-pathway-receptor model establishes the plausibility of a potential effect, and once a plausible association is established, a conclusion on the likelihood of an impact occurring is made. The Applicant should ensure that the ES sets out in detail the plausibility and likelihood for each potential effect. Where an effect is plausible but the Applicant concludes that an impact is not likely to result in a significant effect, this should be clearly presented and justified as part of the health assessment.
97	12.9.13, 12.9.16, Table 12.7	Scientific evidence and literature	The Scoping Report refers in numerous places to the use of scientific evidence and literature as part of the assessment methodology. The ES should clearly reference the evidence and literature relied upon to inform the assessment. If necessary, in order to inform understanding of the assessment this information should be provided in Appendices to the ES.
98	Table 12.6	Health effects subject to qualitative analysis	Table 12.6 details potential health effects from different sources. However, certain sources have been identified as having an impact on "wellbeing" only rather than "physical health and wellbeing". The Inspectorate considers that sources such as living conditions, environment and economy have the potential to impact on physical health in addition to wellbeing and should be assessed in the ES accordingly.
99	12.10.6 – 12.10.10	CoCP and Health Management Plan	The Scoping Report refers to the drafting of a CoCP and Health Management Plan as part of its mitigation proposals. Drafts of these documents should be provided with the DCO application. If the ES relies upon mitigation measures which would be secured through such documents, there should be clear cross-reference made to where such measures are set out in the documents.

4.9 Landscape and Visual Amenity

(Scoping Report Chapter 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
100	13.8	Adverse seascape effects, including cumulative effects.	The Applicant proposes to scope out an assessment of effects from the Proposed Development on the seascape, including any relevant cumulative effects. The justification for this is based on the fact that the Proposed Development does not lie within a marine or coastal location. The Inspectorate is satisfied that having regard to the location of the Proposed Development significant effects to seascape are unlikely to occur and this matter can be scoped out.
ID	Para	Other points	Inspectorate's comments
101	13.1.4; 13.6.2	Tranquillity	The Scoping Report sets out the intention to conduct an assessment of impacts to tranquillity (as it relates to character of the landscape) and makes reference to Campaign to Save Rural England's Tranquillity Mapping in this regard. In addition to acknowledging tranquillity as a key factor in landscape character area sensitivity assessments the ES should also include consideration of significant effects on tranquillity from overflying aircraft. The Applicant should also ensure that an assessment of impacts to tranquillity relevant to other aspects is assessed in the relevant ES chapters.
102	13.3	Stakeholder engagement	The Scoping Report explains that engagement with the HSPG on agreeing the approach to the assessment and mitigation of landscape and visual impacts of the Proposed Development. The Inspectorate recommends that similar effort is made to consult with any surrounding local authorities and other relevant organisations that may be affected by the Proposed Development

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			but not represented in the HSPG eg Chilterns AONB Conservation Board.
103	13.4	Study Area	The Scoping Report states that the study area extends to a 5km radius from the maximum amount of land being considered for the full range of options for the Proposed Development, but that this may continue to evolve to accommodate any changes as the design process progresses. The ES should clearly evidence and justify the final extent of the study area used in the assessment of landscape and visual impacts, having regard to the Zone of Theoretical Visibility. The study area should contain all likely significant effects of the Proposed Development on any component of landscape and visual resource and effort should be made to agree this with relevant consultation bodies, where possible.
104	13.5.1	Baseline Data Collection	The Scoping Report states that baseline data collection is on-going, with both desk studies and field surveys undertaken to date. The ES should clearly set out all studies and surveys undertaken to inform the final baseline information, including the timing of any site visit and how/if professional judgement has been applied. The Applicant should make effort to agree its approach with the relevant consultation bodies.
105	13.5.2	Zone of Theoretical Visibility (ZTV)	The Scoping Report states that a preliminary ZTV for operational infrastructure and development components has been mapped based on indicative height parameters for the various components of the Proposed Development, and that this will be updated as the DCO process progresses. The ES should clearly evidence and justify the final extent of the ZTV used in the assessment of landscape and visual impacts, based on actual height parameters.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>The ZTV should be agreed with relevant consultation bodies where possible. The ES should describe the model and methodology used and should provide information on the area covered and the seasonal timing of any survey work. The operational assessment should consider the movement of aircraft along the proposed runway, and stationary aircraft at the proposed stands in the operational ZTV to ensure that these elements are thoroughly assessed.</p>
106	13.6.7	Representative Viewpoints	<p>The Applicant should agree the viewpoints to be included in its assessment with relevant consultation bodies including the HSPG and other affected local authorities, where possible and should ensure that the ES consider such viewpoints both during the day and at night, and during both winter and summer. The ES should explain the reasons supporting the inclusion of each viewpoint to be assessed, and where relevant a justification for excluding any viewpoints that have been requested by the consultation bodies. The ES should include photographic visualisations of both the baseline view and the view incorporating the Proposed Development, which should be numbered and cross-referenced to accurately plotted locations on an OS map of appropriate scale, which should also show the angle of view. The importance of local landmarks and viewpoints, and the assessment of the extent and direction of views from properties should also be recorded. The assessment should also take into consideration any committed development.</p>
107	13.7.1	Cumulative effects	<p>The Scoping Report states that cumulative landscape and visual amenity effects will be assessed in accordance with the approach set out in section 4.6 of the Scoping Report. For the avoidance of doubt, the Inspectorate considers that such assessment should</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			include existing and proposed developments, including other proposals currently at the scoping stage. It should also consider the relevance of cumulative impacts in protected landscapes, such as the route of HS2 within the Chilterns AONB.
108	13.10	Mitigation	The Scoping Report states that mitigation will be considered during the preparation of a CoCP, and as part of the iterative design development process. The Applicant should ensure that the effectiveness of any proposed mitigation measures are thoroughly assessed in the ES, describing the likely significant effects of the Proposed Development both prior to mitigation and residually so that it is possible to understand the efficacy of proposed mitigation measures. The ES should also explain how measures proposed to mitigate landscape and visual effects, such as planting, may relate to other aspects, for instance impacts on ecological receptors. Appropriate cross-reference should be made between related aspects in the ES, such as Biodiversity, and Historic Environment.

4.10 Land Quality (including soils and geodiversity)

(Scoping Report Chapter 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
109	Table 14.7	Loss of non-Best and Most Versatile (BMV) agricultural land	The Inspectorate considers that the agricultural land quality assessment should focus on assessing the loss of BMV land (as defined in the National Planning Policy Framework). The Inspectorate therefore considers that an assessment of the loss of non-BMV agricultural land is not required, although such loss should be quantified within the ES.
110	Table 14.8	Temporary loss of access to mineral deposits preventing extraction	The Scoping Report does not provide any specific information to support the request to scope this matter out. In absence of detail relating to the specific sites and the consequential impacts that may occur should their current or planned mineral extraction status change, the Inspectorate considers that temporary loss of access to mineral deposits preventing their extraction may result in significant effects and this matter cannot be scoped out from assessment in the ES.
ID	Para	Other points	Inspectorate's comments
111	n/a	Study area	The Inspectorate recommends that interpretative reports are sectioned by local authority area in order to facilitate understanding of the potential effects at a local level.
112	14.9.7	Level of data collected to support the ES will be dependent on the availability of site access to undertake ground investigation	The Applicant must ensure that sufficient baseline information has been obtained to inform an adequate assessment of effects and to demonstrate the required mitigation within the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		surveys	Additional baseline with respect to landfill and minerals sites is provided in the local authority consultation responses (eg Surrey CC, Spelthorne BC and South Bucks DC).
113	14.9.11	Agricultural Land Classification (ALC) survey methodology	In accordance with the Natural England guidance, the list of activities should also include consideration of local climate and site data as part of the reporting process.
114	14.9.55 Table 14.8	Significance criteria	<p>The Scoping Report indicates that only effects with major magnitude would be assessed as being significant. The Scoping Report does not explain why medium magnitude effects would not be significant when they include "permanent effects that will sterilise a <u>significant</u> proportion of a mineral deposit". The ES should provide further justification to support the methodology applied in determining significance.</p> <p>It is also unclear why the magnitude of effect criteria include temporary access effects, since the Scoping Report seeks to scope out such effects in Table 14.8.</p>
115	Appendix 14.1, 8	Bibliography	BS1075:2011+A2:2017 replaces the 2013 version of the standard and should be used to undertake the assessment.

4.11 Major Accidents and Disasters

(Scoping Report Chapter 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
116	Table 15.6-15.7 and Appendix 15.5	Various proposed matters to scope in / out of assessment	The Inspectorate has identified inconsistencies between Tables 15.6-15.7 and Appendix 15.5 of the Scoping Report with regards to matters to scope in or out of the assessment. The Inspectorate is therefore uncertain of the full extent of matters to be scoped out of the major accidents and disasters assessment. The ES should ensure that any matters applicable to this aspect and likely to result in significant effects are assessed.
117	Table 15.7 and Appendix 15.5	External transport accidents involving aircraft not under the control of the Airport during both construction and operation; Absent or deficient safety/environmental management systems (e.g. inadequate planning, resource, provision, procedures); Absent or deficient security provision (e.g. inadequate planning, resource provision, procedures)	The Scoping Report proposes to scope these matters out from the assessment of major accidents and disasters on the basis of the low risk and the requirement for air transport activities to be managed through a licensing regime and in compliance with CAA/EASA codes of practice. However sufficient information has not been provided to demonstrate that there are no likely significant effects in this regard, particularly due to the change in aircraft track interactions with other airports as a result of the Proposed Development which may have an impact on external transport accidents. Where significant effects are likely to occur, this should be assessed within the ES and the relevant CAA/EASA codes of practice to be relied upon by the Applicant to mitigate such effects should be presented.
118	Table 15.7 and Appendix	Structural failure caused by landslip/land movement due to natural phenomena during	The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that the change in risk is not significant in comparison to the current

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	15.5	construction and operation	baseline. The Inspectorate does not consider that this provides suitable explanation to support a decision to scope this matter out of the assessment. The ES should assess impacts to land stability from the Proposed Development and where significant effects are likely to occur. The ES should be informed by any necessary investigations confirming that the Proposed Development its site and immediate surrounds will remain stable.
119	Table 15.7 and Appendix 15.5	Ash cloud, volcanic eruptions and other natural phenomena affecting in flight safety resulting in aircraft having an impact on construction activities or aircraft incident	The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that the change in risk is not significant in comparison to the current baseline. While the Inspectorate considers that ash cloud and volcanic eruptions may be scoped out of the assessment, sufficient information to describe 'other natural phenomena' has not been provided to justify a scoping out of the other elements at this stage. The ES must detail the current baseline in order to justify this approach, and should provide clarity on the range of events defined as "other natural phenomena" along with a thorough evidence base to support the scoping out of such matters from the assessment.
120	Table 15.7 and Appendix 15.5	Malicious attack during construction or operation (terrorism, sabotage, vandalism or theft) including cyber-attack or widespread public disorder during construction either within the Proposed Development or external, leading to effects on the Proposed Development	The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that security experts from the Centre for the Protection of National Infrastructure and the DfT to ensure that physical, procedural and personnel security measures have been adequately considered in the design process, and that adequate consideration has been given to the management of security risks. The Scoping Report does not provide adequate information to justify scoping out this matter at present. The ES should provide evidence of confirmation with relevant consultation bodies that such measures have been

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			adequately considered, in relation to both the operational airport and the other surrounding land forming part of the Proposed Development, in order for the Inspectorate to be satisfied that this matter can be scoped out. Where significant effects are likely to occur, these should be assessed within the ES
121	Table 15.7 and Appendix 15.5	Occupational safety incidents during construction or operation affecting at most 1-2 workers including exposure to hazardous substances (chemical, biological, radiological), physical agents, and hostile environments (confined spaces or extreme temperatures) including falls from heights, vehicle impact during operation only	The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that the risk is managed by safe working practices and preventative, protective measures and health and safety legislation. Justification should be provided in the ES for the scoping out of falls from heights and vehicle impact during the construction phase of the Proposed Development. The Applicant should also provide details of the safe working practices and preventative, protective measures that are currently in place or likely to be in place for the Proposed Development. Where significant effects are likely to occur, these should be assessed within the ES
122	Table 15.7 and Appendix 15.5	<p>Events external to the site resulting in release of biological agents, biohazard, disease, food and water contamination having an effect on construction or operation;</p> <p>Importation of biological agents/ biohazard/ disease/ pathogen including disembarkation of passengers and/ or flight with controlled disease/ biohazard;</p> <p>Release/ exposure to hazardous substance (chemicals,</p>	The Scoping Report proposes to scope these matters out from the assessment of major accidents and disasters on the basis that current systems to address these matters will be extended to the Proposed Development. The Inspectorate does not consider that sufficient information regarding the existing control mechanisms been provided to justify the scoping out of these matters at this stage. The Applicant must provide an in-depth justification for such scoping out, including an explanation of the current systems, controls, procedures and requirements that are currently in place to address these matters. Where significant effects are likely to occur, this should be assessed within the ES

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		<p>radiological/biological) during import or export due to inadequate documentation/ screening;</p> <p>Release of disease/ biohazardous material from quarantine/ storage centres including waste and disposal;</p> <p>External aircraft interference (lasers, fireworks, sky lanterns, drones, wind turbine interaction with radar);</p> <p>Damage to artefacts of national or international importance during import or export;</p> <p>Industrial action or loss of widespread utility failure external to site resulting in failure of key mitigation measures;</p> <p>Space weather (e.g. geomagnetic storms, radiation storms and solar flares) leads to loss of systems (e.g. loss of primary navigation system or loss of communications);</p> <p>Food/water contamination due to failure of onsite monitoring,</p>	

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		<p>handling, control and management, including security; and</p> <p>Loss of essential air safety and airside systems or loss of safety critical workers (e.g. due to industrial action or pandemic illness).</p>	
123	Table 15.7 and Appendix 15.5	Disease outbreak in surrounding area with potential for further infection beyond the airport and/or impairment of essential services (including fire service and policing) or damage to valuable species	<p>The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that the Airport, working with Public Health England, has passenger disembarkation controls in line with UK border control requirements, with facilities subject to inspection by the CAA. The Inspectorate notes however that Table 15.7 does not refer to damage to valuable species, which is only listed as scoped out in Appendix 15.5 with very limited justification. As explained above, the ES should clearly set out which matters are to form part of the assessment of major accidents and disasters. The ES should also provide details of the passenger disembarkation controls that are currently in place and to be relied upon for the purposes of the assessment in order to justify the scoping out of this matter. Where significant effects are likely to occur, this should be assessed within the ES.</p>
124	Table 15.7 and Appendix 15.5	Wake vortex leading to property damage	<p>The Scoping Report proposes to scope this matter out from the assessment of major accidents and disasters on the basis that this is below the threshold for a major accident and disaster. The Inspectorate is content that impacts associated with this matter are unlikely to represent major accident and disaster significant</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			effects and can be scoped out of the assessment.
ID	Para	Other points	Inspectorate's comments
125	Table 15.1	Policy and Legislation	Table 15.1 does not include the Civil Contingencies Act 2004, which the ES should have regard to in carrying out its assessment of major accidents and disasters.
126	Table 15.2	Stakeholder engagement	The Inspectorate notes the effort made to engage with the HSPG, and recommends that a similar level of effort is made to consult with local authorities likely to be affected by the Proposed Development but not otherwise represented in the HSPG.
127	15.6	Baseline conditions	The Scoping Report states that the baseline conditions have been largely informed by other topic chapters. The Applicant should ensure that the ES provides an in-depth description of the baseline for the assessment of major accidents and disasters, including cross referencing and signposting to the relevant sections of other chapters that are being relied upon. In addition to the conditions set out in other aspect assessments the ES should establish a baseline in respect of natural disasters, for example setting out the current susceptibility of the site to seismic movement, extreme storms, tornadoes, snow and fog.
128	15.4 15.9.1	Study Area	The Scoping Report states that the study area may continue to evolve to accommodate any changes as the design process progresses. The ES should clearly evidence and justify the final extent of the study area used in the assessment of landscape and visual impacts. The study area should contain all likely significant effects of the Proposed Development from the perspective of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			major accidents and disasters and should be agreed with relevant consultation bodies including the CAA, HSPG and other affected local authorities.
129	Table 15.5	Flight phases	The Scoping Report does not assess the impact associated with how aircraft are moved to, from and around the airport or the impact associated with manoeuvring or missed approaches. The Inspectorate does not consider that sufficient information has been provided to demonstrate that there are no likely significant effects in relation to this. Where significant effects are likely to occur, this should be assessed within the ES.
130	Table 15.6	Likely significant effects	The Scoping Report does not assess the impact associated with mid-air accident risk. The Inspectorate does not consider that sufficient information has been provided to demonstrate that there are no likely significant effects in relation to this. Where significant effects are likely to occur, this should be assessed within the ES.
131	Table 15.6	Baseline conditions	The baseline description presented in the ES should take account of the major accident hazard sites and major accident hazard pipelines identified by the Health and Safety Executive in its consultation response, to ensure that a complete assessment of all likely significant effects can be undertaken.
132	15.9.3	Design evolution	The Scoping Report states that the progress in the design of the Proposed Development may lead to changes in the baseline, effects to be scoped into or out of the assessment and mitigation requirements. The ES must provide a clear explanation of the baseline and effects to be assessed from a major accidents and

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			disasters perspective, including a justification in respect of any deviation from this Scoping Opinion e.g. changes in matters to be scoped out of the assessment.
133	15.9.17	Assessment years	The assessment years for the purposes of the major accidents and disasters assessment in the ES should include the early release of ATMs to ensure that all likely significant effects have been identified.

4.12 Noise and Vibration

(Scoping Report Chapter 16)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
134	16.9.1	Vibration from construction and operational traffic on new, altered or existing roads.	The Inspectorate considers that an assessment of vibration effects arising from construction vehicles on the existing road network should be provided as part of the ES, in line with the methodological approach set out in the Design Manual for Roads and Bridges (DMRB).
135	16.9.2	Consideration of hearing loss.	The Inspectorate has had regard to information presented in paragraph 16.9.2 of the Scoping Report and considers that effects on hearing loss may be scoped out of the assessment as significant effects are unlikely to occur.
ID	Para	Other points	Inspectorate's comments
136	Table 4.6	Road traffic noise on the existing network	It is unclear from Table 4.6 whether the assessment includes consideration of road traffic noise within the site or on the new road network. For the avoidance of doubt, the impact of noise from traffic within the operational boundary of the Proposed Development should be assessed, where it has potential to give rise to likely significant effects on noise sensitive receptors in isolation or in combination with other noise sources.
137	16.6.20-30	Noise monitoring	The Scoping Report states that baseline noise monitoring will be undertaken but provides no detail regarding the proposed survey approach. Baseline noise monitoring should be undertaken to a recognised standard eg BS7445-1:2003 or equivalent. Baseline data should be up to date and representative of current

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			conditions.
138	16.7.8 16.10.34	Aircraft fleet mix	The Scoping Report proposes to make assumptions regarding future aircraft fleet mix. The assumptions regarding the potential fleet mix should be set out in the ES as well as the basis for any the sensitivity testing, allowing for a conservative, worst case assessment.
139	16.8.4	Town and Country Planning (EIA) Regulations 2017	Reference should be to an assessment of likely significant effects in respect of the Infrastructure Planning (EIA) Regulations 2017.
140	Table 16.7	L _{Amax} LOAEL and SOAEL criteria	The L _{Amax} / number of events and a risk assessment of objective sleep disturbance are currently not specified for aviation (although it is for rail). The ES should set a specific threshold based on relevant guidance (eg World Health Organisation or similar).
141	16.4.5 and Footnote 35	Effects above LOAEL over 4,000ft	Whilst considering noise exposure above LOAEL to be unlikely above 4,000ft, the Air Navigation Guidance goes on to state that "but where such exposure does occur the CAA should ensure that the focus remains on minimising these impacts". The Applicant should consider the potential for exposure above LOAEL, likely to result in likely significant effects between 4,000 and 7,000ft, where relevant.
142	16.10.20 Graphic 16.3 footnote b	Method 2 (the 'ABC' method)	The ABC method is example method 1 in Annex E of the British Standard BS5228-1+A1:2014. Reference to Method 2 creates confusion as to whether the assessment proposes to apply ABC criteria (method 1) or a 5dB magnitude of change (method 2) criterion to inform the assessment of significance. The ES should provide a consistent description of the ABC method and the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			applied criteria.
143	16.10.37	AEDT, ANCON or both	The statement that modelling may be taken either with AEDT or ANCON contradicts subsequent paragraphs suggesting that both models will be used to assess noise emissions. It is also unclear why two modelling approaches are required. The ES should justify the scope of modelling work undertaken with reference to relevant guidance and standards for aviation.
144	16.10.49	Calculations using ISO9613-2	The ES should set out the parameters and assumptions applied to the calculations of sound propagation.
145	16.10.51	'Data describing noise levels of aircraft which may include baseline measurements...'	The Inspectorate considers that source noise levels for aircraft should include baseline measurements of current operations.
146	16.10.52	Model assumptions including ground levels, building/ elevations, screens and ground types.	The description of development provided at scoping stage recognises that further evolution of the design will occur. The ES should ensure that any model outputs that are predicated on a current design of the Proposed Development have sufficient certainty of delivery to merit their inclusion as part of the worst case assessment.
147	16.10.68	Groundborne noise	The ES should include an assessment of groundborne noise from rail and any other relevant sources.
148	16.10.86	Qualitative assessment of non-significant effects from more than one source	The ES should justify the use of a qualitative rather than a quantitative approach to the consideration of combined effects arising from more than one source on a single receptor or area.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
149	16.10.87 Graphic 16.3	"Receptor by receptor or area by area basis"	Reference is made to a receptor by receptor <u>or</u> area by area assessment at a number of points within the text. Later sections describe a staged process of considering effects by area then by individual receptor where thresholds have been exceeded. It is assumed that the either/or approach is intended to reflect the staged process, which the Inspectorate considers to be appropriate rather than suggesting that either areas <u>or</u> receptors will be assessed.
150	Table 16.6 Graphic 16.3	Unacceptable adverse effect level (UAEL)	Reference is made to the UAEL in Table 16.6 but no other reference to assessment of UAEL is included in the text or in the process outlined in Graphic 16.3. The ES should define and assess UAEL for the Proposed Development.
151	Table 16.8	Magnitude of effect criteria	The magnitude of effect criteria are noted to be consistent with other NSIP assessments for receptors currently experiencing noise levels between LOAEL and SOAEL. The Scoping Report states that " <i>Greater weight will be given to change, even slight change, where the existing exposure already exceeds the relevant SOAEL</i> ". The Inspectorate considers that additional criteria should be included to reflect the greater weight afforded to exposure already exceeding SOAEL. The ES should justify why more stringent criteria has not been adopted for the purposes of this assessment.
152	16.10.95	Updated World Health Organisation Community Noise Guidelines.	Where updated guideline values become available the ES should describe how the updated criteria have been taken into account.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
153	Graphic 16.3	Additional factors 3.	The description of additional factor three is missing text, making the intent of the statement unclear.
154	Table 16.9	Overflights	The threshold elevation angle used in consideration of overflights should be justified in the ES, with reference to relevant CAA guidance.
155	16.10.106c	Small or large population	The terms small or large population are combined with the magnitude of effect criteria. The ES should provide a clear definition of what will constitute a small or large population.
156	16.10.108	"is being developed"	The inclusion of methodological approaches that are in development limits the ability of the Inspectorate to comment on the scope of the assessment. The ES should set out the approach adopted for the assessment and efforts should be made to agree these with consultation bodies, where relevant.
157	16.10.111	Additional factors to determine significance	The Inspectorate considers that the scope of assessment identifies the factors relevant to determine significance of noise effects, however the weight given to each of these factors in making a final determination of significance is unclear. In order to allow a transparent understanding of the assessment conclusions, as far as it is possible, the ES should provide a simple description of how each factor has influenced the assessment of the significant effects identified.
158	16.10.118	These additional metrics could be used to support and refine the identification of likely significant	This statement creates uncertainty in the proposed approach to assessment of significance. The ES should be specific regarding the factors that have been used to determine significance.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		effects...	
159	16.10.127	Flight paths design	The Inspectorate acknowledges that flight path design cannot be fixed by the DCO and that detailed flight path evaluation will be considered as part of the Airspace Change Process (ACP). The ES should provide an indication of the level of certainty attached to the aircraft noise, recognising that flight paths are relatively fixed close to landing and take-off but are subject to increasing uncertainty with distance from the relevant runway.
160	Table 16.10	50dB $L_{Aeq, 16hour}$ daytime criteria for hospitals	The Inspectorate considers that the further justification is required for the use of a 50dB $L_{Aeq, 16hour}$ outdoor criterion rather than the indoor 30dB $L_{Aeq, 16hour}$ criterion set out in the WHO Community Noise Guidelines. Efforts should be made to agree the criteria with the relevant local authority Environmental Health Officers. It is also unclear why cross reference 30 is used to justify the use of this criterion, since it relates to the construction vibration standard BS5228-2.
161	Table 16.10	50dB $L_{Aeq, 16hour}$ daytime criteria for schools	The Inspectorate considers that further justification should be provided for use of the 16 hour reference time interval for schools rather than the school day, consistent with the WHO Community Noise Guidelines.
162	Table 16.10	55dB $L_{Aeq, 16hour}$ external amenity space screening criteria	The WHO Community Noise Guidelines state that 55dB $L_{Aeq, 16hour}$ is the threshold of serious annoyance for outdoor living areas. Further justification should be provided in the ES to explain why the more conservative 50 dB $L_{Aeq, 16hour}$ moderate annoyance threshold has not been identified as a screening threshold for inclusion of receptors within the assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
163	Graphic 16.4	Temporary construction impacts	The ES should define the term 'temporary' in light of the potential long duration of predicted construction sites and activities.
164	16.10.142	'a large noise change'	This paragraph cross references to Table 16.8, which uses the terms slight, minor, moderate and major to describe magnitude of change criteria. The ES should apply consistent terminology for the magnitude of change descriptors.
165	16.10.148	'design of the receptor'	The ES should set out the relevant design feature criteria used to inform 'additional factor #2'.
166	16.10.155	Additional metrics in line...	The relevant cross reference is missing, making the intent of the statement unclear.
167	Table 16.11	Peak Particle Velocity (PPV) criteria for vibration damage to buildings.	The criteria are stated to be derived from BS7385-2, however the criteria for transient vibration set out in the standard identify that the risk of cosmetic damage to residential buildings starts at a PPV of 15 millimetres per second (mm/s) at 4 hertz (Hz). The standard also notes that below 12.5 mm/s PPV, the risk of damage tends to zero. The ES should provide further justification for the proposed criteria, including reference to frequency dependent effects, where relevant.
168	16.11	Mitigation	The proposed noise insulation offer should be described within the ES. Details should be provided of the terms and conditions of uptake to demonstrate the deliverability of such a scheme and therefore the certainty to be placed on such mitigation.
169	Appendix 16.2	Noise Expert Review Group (NERG)	The status of outputs produced by the NERG is unclear. The Inspectorate recommends that any recommendations regarding

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the scope and methodological approach made by the NERG are documented within the Applicant's ES.

4.13 Traffic and Transport

(Scoping Report Chapter 17)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
170	n/a	n/a	No matters have been proposed to be scoped out of the assessment, however the matters to be considered in Table 4.6 does not list an assessment of vehicular traffic within the operational airport and it is unclear whether this matter is considered within the air quality assessment. For the avoidance of doubt, the Inspectorate considers that sufficient information should be provided regarding operational traffic movements within the airport to enable an assessment of future air quality emissions to be undertaken.
ID	Para	Other points	Inspectorate's comments
171	17.1.10 and Table 17.2	Transport consultees and working groups	The Scoping Report identifies numerous transport consultees including Transport for London (TfL), the Heathrow Airport Transport Forum (HATF), the Technical Working Groups (TWGs), HSPG transport subgroup, Heathrow Area Transport Forum (which includes four working groups) and the Heathrow Highways Steering Group (HHSG). For clarity, the ES should include a description of the relative roles, functions and hierarchy of these groups in order to allow transparent understanding of the decision making framework for transport related matters. Any agreements reached with relevant consultation bodies regarding the methodological approach should be documented in the ES, where possible. It is unclear from Table 17.2 what consultation has been undertaken with Network Rail in relation to the assessment of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>effects on the rail network.</p> <p>The list of stakeholders should also include Royal Mail in consideration of the potential effects of the Proposed Development on Royal Mail operations within the Heathrow area.</p>
172	Figure 17.1	Error in boundary	To the east of Richmond the Rest of Fully Modelled Area boundary curves inwards and back along the Area of Detailed Modelling boundary. The figure should show two distinct polygons. The final study area boundaries should be clearly set out in the ES.
173	Figure 17.2	Clarity of text	The resolution of text is poor. The ES should ensure that all figures are clearly legible.
174	17.1.11	Best practice guidance	The Scoping Report refers to use of best practice guidance but does not set out what best practice guidance will be adopted. The Inspectorate recommends that the ES has regard to TfL best practice guidance on Transport Assessment, healthy streets, the promotion of active travel and constructions logistics.
175	Table 17.1	Department for Transport (DfT) Circular 02/2013: The strategic road network and the delivery of sustainable development	The ES should demonstrate how the DfT circular relating to the appraisal of development proposals affecting the strategic road network has been taken into account.
176	17.4.2	Heathrow Highway Assignment Surface Access Model (HHASAM)	<p>The ES should fully justify the use of a dedicated highway model for Heathrow instead of existing standardised models for the Greater London Area. Efforts should be made to agree the modelling approach with relevant consultation bodies.</p> <p>The assessment should take into account the influence of</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			technology such as satnav, in the assignment of trips.
177	17.4.5	140mmpa	This figure is inconsistent with the predicted 130 mppa described in paragraph 1.2 of the scoping report. The ES should use consistent assumptions and assess the likely worst case increase in passenger numbers.
178	17.4.9	Railplan modelling	The extent of the Railplan model, data and validation should be agreed with TfL and other stakeholders where possible.
179	17.4.5 17.9.18	Threshold of change defining study area boundary	Paragraph 17.4.5 states that a 5% change in peak hour traffic flows threshold will be used to define the initial study area boundary, whereas paragraph 17.9.18 suggests that the study area will be defined using a 10% change in flows prior to considering whether locations are sensitive. The two approaches would likely give rise to substantially different study areas. Care should be taken when considering whether to assess links since a 1% increase on a congested network may have a significant effect, compared with a 10% increase in traffic on a lightly trafficked road. Robust justification should be provided for any links to be excluded/included within the assessment.
180	17.4.13	Study area evolution	The Scoping Report suggests that the study area may be subject to further evolution. The ES should explain any departure from the proposed criteria for definition of the traffic and transport study area set out in the Scoping Report. The study area should include areas currently affected by on street parking by private hire vehicles.
181	17.6.5	Bus datasets	The baseline dataset for assessment of bus routes should

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			incorporate TfL's iBus data, where relevant.
182	Table 17.3	Movement of materials to and from site during construction	<p>Table 17.3 identifies that movement of materials to and from site will be for HGV movements. The ES should also consider the potential for significant effects from light duty vehicle (LDV) deliveries. The ES should also give consideration to the effects arising from increased material movement by other transport modes eg rail and water, where relevant.</p> <p>The potential for abnormal load deliveries is not discussed within the Scoping Report and should be addressed within the assessment.</p>
183	Table 17.3	Movement of people (colleagues)	The definition of 'colleagues' is unclear. The assessment scope should include all maintenance workers, cargo industry workers, those in service industries, offices, hotels and supply chain companies as well as direct Heathrow and airline employees.
184	17.9.3 - 17.9.5	Site observations	Baseline data will be supplemented by 'site observations'. No detail of the proposed site observation scope or methodological approach is provided. Baseline data used to supplement the traffic and transport assessment should be collected in accordance with relevant standards and guidance.
185	17.9.4	Cycling	TfL states that the cycling network model for London 'Cynemon' should be used to assess the impacts of the scheme on cycling. The Applicant should seek to agree the proposed cycling model with the relevant consultation bodies and explain any departures from standardised models, where relevant.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
186	17.9.25	5km/hour criteria	In accordance with DMRB, allowance should be made for different walking speed criteria for vulnerable groups.
187	17.10	Mitigation	<p>The assessment in the ES should have regard to TfL guidance on construction logistics and the protection of infrastructure.</p> <p>Construction traffic routes should be agreed with the relevant local planning authorities where possible.</p>
188	Appendix 17.1 para 1.6.7	Passenger forecasts and scenarios for the number of colleagues	The ES should provide details of all assumptions used to underpin the passenger forecasts and colleague number scenarios, including any consultation regarding those assumptions. The Applicant should make efforts to agree the passenger forecast projections used in the ES with relevant consultation bodies.

4.14 Water Environment

(Scoping Report Chapter 18)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
189	Table 18.9, 18.6.32, Table 18.11	Activities described in Table 18.7 – Tidal flood risk	Risk of tidal flooding to and from the DCO project is ruled out in Table 18.9. Paragraph 18.6.32 makes no reference to the increased risk of tidal flooding elsewhere due to the project and Table 18.11 states that the flood risk assessment will cover all sources of flood risk including tidal. The Inspectorate does not agree that this matter can be scoped out because the Scoping Report lacks a robust justification and does not quantify the discharges from the Proposed Development. The Applicant should make efforts to agree the need for a tidal flood risk assessment with the relevant consultation bodies.
190	Appendix 18.3, Table 18.3.1	Groundwater dewatering Mobile treatment plant (dewatering) Mobile treatment plant (sewage)	Table 18.3.1 identifies a number of matters that could be scoped out of the groundwater modelling. These matters are not identified as scoped out within section 18.8 of the Scoping Report. In the absence of justification within the main Scoping Report, these matters are not scoped out.
191	Appendix 18.3, Table 18.3.1	Portable toilet facilities	The Inspectorate considers that assessment of such facilities during construction may be scoped out from further assessment on the basis that a discharge is not required.
192	Appendix 18.3, 3.6.3	No accretion or detailed groundwater surveys are planned for the Crane/Thames catchments.	The Applicant should ensure that the assessment in the ES is underpinned by sufficient baseline survey information. Effort should be made to agree the need for more detailed baseline survey information with relevant consultation bodies. If no further survey effort is conducted the ES should include a robust

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			justification support the exclusion of such surveys from the identified catchments.
ID	Para	Other points	Inspectorate's comments
193	Table 4.6	Increased sediment loading to surface water (construction only)	Due to the proposed increase in impermeable area during operation, the Inspectorate considers that increased sediment loading to surface water during operation could result in a likely significant effect and should be assessed.
194	Table 18.3	Groundwater study area	The study area is defined only with respect to the Lower Thames Gravels WFD groundwater body. Paragraph 14.4 of the land quality chapter identifies the potential for effects on the underlying chalk aquifer to arise from construction works including basements or piled foundations that extend below the base of the London Clay and Table 18.7 and Appendix 18.2 highlight the need to consider effects on the Cretaceous chalk aquifer. The Applicant should ensure that the extent of the model is sufficient to address effects on all aquifers likely to be affected.
195	Table 18.4 Table 18.10	Baseline data	The Inspectorate considers that further justification is required for the additional surveys to be undertaken. Currently the listed surveys lack detail regarding their extent, timing, duration, detailed methodology or reference to recognised survey standards. In light of the Environment Agency's comments in relation to the lack of flow gauging and monitoring, particular consideration should be given to justifying any flow monitoring surveys. Effort should be made to agree the detailed scope of surveys with the relevant consultation bodies eg. Environment Agency and Lead Local Flood Authorities.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The baseline data should include Local Authority data regarding the extent of functional floodplains and from the Catchment Data Explorer, strategic flood risk assessments and relevant water quality assessments (for example as referenced in the South Bucks, Buckinghamshire and Surrey CC responses).
196	Table 18.8	Change in land use and river diversion activity	The receptor WE10: Upper River Colne should be included in the change in land use and river diversion and linked effect changes to channel morphology in operation, where relevant.
197	18.9.10	Assessment scenarios	The ES should also consider the potential for likely significant water quality effects to arise during the early ATM uplift scenario due to increased pollutant deposition due to increased aircraft and ground vehicle activity.
198	Table 18.14 and Table 18.5	Receptor sensitivity and magnitude of effect criteria	Whilst there is no industry standard methodological approach to undertake water environment assessments, the Scoping Report makes no reference to existing methodological approaches that are commonly used to assess water environment effects. The source of the proposed sensitivity and magnitude criteria are not set out in Table 18.14 and Table 18.15, although they appear to be loosely based on DMRB Volume 11 Section 3 HD45/09 Road Drainage and the Water Environment (or WebTAG) and Table 18.2 makes reference to DMRB requirements. The criteria reference designated areas but do not reference specific ecological elements of affected waterbodies (eg fish) that contribute to the sensitivity of the waterbodies. The Inspectorate recommends that effort is made to agree the elements to be considered as part of the criteria with the relevant consultation bodies.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
199	18.10.9 5.10	'Possible' plans	<p>The draft CoCP is referenced as an example of a 'possible' plan, whereas section 5.10 of the Scoping Report states that a draft CoCP will be produced. The Inspectorate expects a draft CoCP to be submitted as part of the ES. The applicability of the CoCP to deliver environmental management of maintenance activities should be considered.</p> <p>The Inspectorate expects the ES to contain details of the proposed operational drainage strategy, in order to understand the potential effects of the development on the water environment and the effectiveness of any mitigation proposed.</p>
200	Appendix 18.1	Water Framework Directive (WFD) derogation	The appendices refer to the potential need for derogation under the WFD, with specific reference to Article 4.7 of the WFD. Any requirements under Articles 4.8 and 4.9 of the WFD should also be considered and addressed through the assessment.
201	Appendix 18.1, 5.2.3	Thames River Basin Management Plan (RBMP)	The interim WFD objectives for the Thames RBMP, which are due to be released in 2019, should be used to inform the ES and WFD assessment where relevant.
202	Appendix 18.1, 6.1.12	Water bodies currently attaining good status will not be subject to screening for effects on the achievement of WFD status objectives, as they are already at target status.	The screening assessment should take into account the interim WFD objectives for the Thames RBMP in case of changes in the status of waterbodies subject to assessment.
203	Appendix 18.1, 7.2.3	Temporary effects	The assessment relies on the European Commission, Common Implementation Strategy for the Water Framework Directive

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			(2000/60/EC), Guidance Document No. 20, 2009 and states that impacts are considered to be temporary, and therefore not to constitute deterioration of WFD status if the water body would "Recover without the need for any mitigation". The EC guidance actually uses the term "restoration" rather than mitigation. The ES should ensure consistent use of terminology between assessments and guidance. The duration of temporary effects should be fully defined.
204	Appendix 18.1-18.3	Climate change	Limited reference is made within the surface and groundwater modelling appendices to climate change. The ES should ensure that the modelling process takes account of future climate change scenarios and clearly cross references to the findings of the climate and climate change assessment.
205	Appendix 18.4, 6.2.2	Pluvial flood risk	Paragraph 6.2.2 suggests that existing publicly available Environment Agency surface water flood risk mapping will be sufficient to inform the flood risk assessment but that modelling may also be required. Efforts should be made to agree the requirement for pluvial flood risk modelling with the relevant consultation bodies e.g. Environment Agency and Lead Local Flood Authorities.
206	n/a	Canal and River Trust	If during design development the Proposed Development approaches within 100m of a relevant waterway, the Canal and River Trust, should be consulted.

4.15 Waste Impact Assessment

(Scoping Report Section 4.4 and Appendix 4.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
207	4.4.1, Table 4.5 and Appendix 4.1	Waste as a separate topic chapter	<p>The Scoping Report proposes to consider waste '<i>as part of the appropriate environmental topics and associated strategies</i>'. Table 4.5 cross references to aspect chapters that would consider waste related effects such as air quality and transport.</p> <p>The Scoping Report is somewhat confusing in providing a stand-alone assessment methodology including significance criteria for capacity impacts in Appendix 4.1 but not identifying where in the ES such an assessment would be provided. The Inspectorate considers that this should be provided as a stand-alone aspect chapter.</p> <p>The ES must include an assessment of effects on waste capacity, in particular addressing the reduction in waste treatment capacity caused by the loss of the Lakeside Energy from Waste Plant, including any contingency measures that would be required should it not be possible to relocate the facility.</p> <p>The waste assessment must demonstrate that the Applicant has proposed an effective process that will be followed to ensure effective management of hazardous and non-hazardous waste arising from all phases of the lifetime of the Proposed Development; that the types of waste produced during construction and operation are quantified; and any likely significant effects arising from the disposal and recovery of waste have been identified.</p> <p>The consultation responses incorporate baseline data relevant to</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the assessment of waste impacts (eg Surrey CC), the Inspectorate advises that such data should be taken into account within the assessment to be presented in the ES.
208	Appendix 4.1, 1.6.6	Hazardous, inert and liquid Controlled Wastes during operation will not be considered.	The potential volume of hazardous, inert and liquid Controlled Wastes should be quantified and their disposal methods identified including confiscated liquids and liquid wastes generated during aircraft maintenance.
ID	Para	Other points	Inspectorate's comments
209	Section 4.4, Table 4.5	Resource Management Plan	Mitigation and enhancement for waste and resources management during construction is proposed to be set out in an overall CoCP, Resource Management Plan and contractor site waste management plans. A draft of the relevant plans used to inform the assessment including the Resource Management Plan should be provided as part of the ES.
210	Appendix 4.1, 1.2.10	Assessment area	For the construction phase, waste and material resources shall be assessed based on the boundary of the DCO Project having regard to the South East and London regional areas. The spatial scope should not be drawn so wide that the assessment of effects on existing and future waste capacity is underrepresented.
211	Appendix 4.1, 1.2.12	30 minute drive time assumption	Efforts should be made to agree the assumption of a 30 minute drive time with the relevant highways authority during development of the transport model. Justification should be provided for all such assumptions made in relation to disposal eg application of the proximity principle for disposal of waste.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
212	Appendix 4.1, 1.4.11	5.5 day working week	A 5.5 day working week is currently assumed to forecast waste generation rates from worker accommodation. Forecasts should be kept under review to allow for other patterns of working that may be identified as necessary for delivery of the Proposed Development.
213	Appendix 4.1, Tables 1.4.1-1.4.3	Significance criteria	The significance criteria set out in Appendix 4.1 are based on thresholds in the now withdrawn circular 02/99. The Applicant should consider the use of threshold criteria adopted by waste planning authorities within the South West as highlighted in Buckinghamshire CC's consultation response. The ES should justify the suitability of the criteria adopted.

4.16 Cumulative Effects Assessment

(Scoping Report Section 4.6 and Appendix 4.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
214	Appendix 4.2, 3.2.13	Effects on local plan development	The Scoping Report states that 'Given the lack of published information and the inherent uncertainty as to the delivery of developments referred to in development plans, it is not considered possible to take such developments into account in the CEA'. The Inspectorate considers that the CEA should follow the advice set out in Advice Note 17: Cumulative Effects Assessment (AN17) and include an assessment in relation to local plans.
ID	Para	Other points	Inspectorate's comments
215	4.6.6	5 year exclusion criteria	The use of a 'planning applications submitted and consented/ pending determination in the last 5 years' exclusion criteria may exclude some very large and complex developments from consideration as part of the cumulative effects assessment. Justification for exclusion of such projects should be provided.
216	Appendix 3.2 of Appendix 4.2	Table 3.2.1	The Inspectorate notes that the Scoping Report proposes to adopt the Mayor of London's call-in criteria for the purposes of screening Tier 1 development. These criteria only relate to development within the Greater London Authority administrative area. Outside this area, powers available under the Town and Country Planning Act 1990 may be more appropriate. In addition, the Scoping Report proposes to use criteria set out in Schedule 2 of the Town and Country Planning (EIA) Regulations 2017. The Inspectorate suggests that Schedule 1 criteria should also be applied.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
217	Appendix 3.4 of Appendix 4.2	Initial schedule of other developments	The list of developments considered should include the prospective Southampton to London Pipeline NSIP and Southern Rail project, where relevant. The ES should also have regard to the list of permitted and proposed minerals and waste developments identified by Buckinghamshire CC and Surrey CC.
218	Appendix 4.2, 3.4.1	Freeze date approximately 6 months prior to the DCO application being submitted	As set out in the AN17, where new 'other development' comes forward following the stated assessment cut-off date, the Examining Authority may request additional information during the examination in relation to effects arising from such development. The applicant should be aware of the potential need to conduct further assessments and provide more information.
219	Appendix 4.2, 3.5.2	Significance of cumulative effects	The Scoping Report states that <i>'the same significance criteria will be used in relation to each topic as are used for their core assessment, considering whether the cumulative effects would have a higher level of significance than that identified in core assessments.'</i> This suggests that a purely additive approach to cumulative effects is proposed. The ES should ensure that any synergistic cumulative effects are also identified, where relevant.

5. INFORMATION SOURCES

5.0.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:

- Pre-application prospectus⁶
- Planning Inspectorate advice notes⁷:
 - Advice Note Three: EIA Notification and Consultation;
 - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
 - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
 - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
 - Advice Note Nine: Using the 'Rochdale Envelope';
 - Advice Note Ten: Habitat Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
 - Advice Note Twelve: Transboundary Impacts;
 - Advice Note Seventeen: Cumulative Effects Assessment; and
 - Advice Note Eighteen: The Water Framework Directive.

5.0.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

⁶ The Planning Inspectorate's pre-application services for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

⁷ The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES⁸

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS North West Surrey Clinical Commissioning Group
	NHS Slough Clinical Commissioning Group
	NHS Windsor, Ascot and Maidenhead Clinical Commissioning Group
	NHS Chiltern Clinical Commissioning Group
	NHS Hillingdon Clinical Commissioning Group
	NHS Hounslow Clinical Commissioning Group
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England - London Gt London
The relevant fire and rescue authority	Royal Berkshire Fire and Rescue
	Surrey Fire and Rescue Services Headquarters
	Buckinghamshire Fire and Rescue Service

⁸ Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

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SCHEDULE 1 DESCRIPTION	ORGANISATION
	London Fire Brigade
The relevant police and crime commissioner	Surrey Police and Crime Commissioner
	Metropolitan Police and Crime Commissioner
	Thames Valley Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Colnbrook with Poyle Parish Council
	Old Windsor Parish Council
	Wraysbury Parish Council
	Horton Parish Council
	Datchet Parish Council
	Iver Parish Council
	Denham Parish Council
The Environment Agency	The Environment Agency - Hertfordshire & North London
	The Environment Agency – Thames
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	Surrey County Council
	Slough Borough Council
	London Borough of Hillingdon
	London Borough of Hounslow
	Royal Borough of Windsor and Maidenhead
	Buckinghamshire County Council
The relevant strategic highways company	Highways England - South East
Transport for London	Transport for London

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Canal and River Trust	The Canal and River Trust
Public Health England, an executive agency of the Department of Health	Public Health England
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	Forestry Commission - South East and London
The Secretary of State for Defence	Ministry of Defence

TABLE A2: RELEVANT STATUTORY UNDERTAKERS⁹

STATUTORY UNDERTAKER	ORGANISATION
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	London Ambulance Service NHS Trust
The relevant NHS Foundation Trust	South East Coast Ambulance Service NHS Foundation Trust
	South Central Ambulance Service NHS Foundation Trust
Railways	Network Rail Infrastructure Ltd
	Highways England Historical Railways Estate
Road Transport	Transport for London
Canal Or Inland Navigation Authorities	The Canal and River Trust
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding

⁹ 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008

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STATUTORY UNDERTAKER	ORGANISATION
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	Environment Agency - Hertfordshire and North London
The relevant water and sewage undertaker	Affinity Water (Southeast region)
	Thames Water
The relevant public gas transporter	Cadent Gas Limited
	Energetics Gas Limited
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
The relevant electricity distributor with CPO Powers	Energetics Electricity Limited
	Energy Assets Networks Limited
	Energy Assets Power Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited

STATUTORY UNDERTAKER	ORGANISATION
	G2 Energy IDNO Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	Utility Distribution Networks Limited
	UK Power Networks Limited
	National Grid Electricity Transmission Plc

TABLE A3: SECTION 43 CONSULTEES (FOR THE PURPOSES OF SECTION 42(1)(B))¹⁰

LOCAL AUTHORITY¹¹
Wycombe District Council
Surrey Heath District Council
Runnymede District Council
Elmbridge District Council
Spelthorne District Council

¹⁰ Sections 43 and 42(B) of the PA2008

¹¹ As defined in Section 43(3) of the PA2008

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LOCAL AUTHORITY¹¹
South Bucks District Council
Chiltern District Council
Three Rivers District Council
Slough (Borough Council
Royal Borough of Windsor and Maidenhead
Wokingham Borough Council
London Borough of Richmond upon Thames
London Borough of Hammersmith and Fulham
London Borough of Hounslow
London Borough of Ealing
London Borough of Hillingdon
Bracknell Forest Borough Council
London Borough of Harrow
Buckinghamshire County Council
Hertfordshire County Council
Surrey County Council
South Downs National Park Authority
London Borough of Kingston upon Thames
Milton Keynes Council
London Borough of Sutton
London Borough of Croydon
London Borough of Bromley
Central Bedfordshire Council
Kent County Council
Northamptonshire County Council

LOCAL AUTHORITY¹¹
Oxfordshire County Council
West Sussex County Council
East Sussex County Council
Hampshire County Council

THE GREATER LONDON AUTHORITY

ORGANISATION
The Greater London Authority

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
N/A

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

Consultation bodies who replied by the statutory deadline:

Affinity Water Limited
Buckinghamshire County Council*
Buckinghamshire Fire and Rescue Service
Cadent Gas Limited
The Canal and River Trust
Central Bedfordshire Council
Civil Aviation Authority
Datchet Parish Council
Ealing Council*
The Environment Agency
ESP Utilities Group Ltd
Forestry Commission
Health and Safety Executive
Highways England
Hillingdon Clinical Commissioning Group
Historic England
Horton Parish Council
London Borough of Hammersmith and Fulham
London Borough of Hillingdon
London Borough of Hounslow*
Ministry of Defence
National Grid
NATS

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Natural England
Network Rail
Public Health England
Royal Borough of Kingston upon Thames*
Royal Borough of Windsor and Maidenhead*
Royal Mail
Runnymede Borough Council*
Slough Borough Council*
South Bucks District Council and Chiltern District Council*
Spelthorne Borough Council*
Surrey County Council*
Transport for London
West Sussex County Council
Wraysbury Parish Council

*Consultation response includes or comprises the joint response prepared by Heathrow Strategic Planning Group (HSPG).