

CITY AIRPORT DEVELOPMENT PROGRAMME
(CADP1) S73 APPLICATION

ENVIRONMENTAL STATEMENT

VOLUME 2: APPENDICES

DECEMBER 2022



P e l l F r i s c h m a n n

City Airport Development
Programme (CADP1) S73
Application

Volume 2: Appendices
Appendix 3.2 Draft Scoping Report

December 2022

EIA SCOPING REPORT

London City Airport – Variation of Conditions to Enable Future Growth

CONFIDENTIAL

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LCY VARIATION OF CONDITIONS - EIA SCOPING REPORT

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Contents

1	INTRODUCTION	1
1.1	Overview	1
1.2	Site Location and Context	2
1.3	Environmental Impact Assessment.....	3
2	PLANNING BACKGROUND, AVIATION FORECASTS AND EIA ASSESSMENT YEARS	9
2.1	CADP1 Planning Permission	9
2.2	Proposed Amendments to Conditions	10
2.3	ATM and Passenger Forecasts.....	11
2.4	EIA Assessment Years and Scenarios	13
3	POLICY CONTEXT	15
3.1	National Planning Policy and Guidance	15
3.2	Local Planning Policy	16
4	EIA METHODOLOGY	18
4.1	Summary of the EIA Process	18
4.2	EIA Approach	19
	Impact Identification.....	19
4.3	Structure of the Environmental Statement	21
4.4	Structure of the Technical Chapters	22
5	PROPOSED SCOPE OF THE ENVIRONMENTAL STATEMENT	25
6	SCOPED IN TOPICS	26
6.1	Socio-economics	26
6.2	Surface Access	28
6.3	Noise	30
6.4	Air Quality	36
6.5	Climate Change	38
6.6	Public Health and Wellbeing	43
7	NON-SIGNIFICANT TOPICS	52
7.1	Introduction.....	52
7.2	Water Resources and Flood Risk (Scoped Down)	52
7.3	Townscape and Visual Effects (Scoped Out)	54
7.4	Ecology and biodiversity (Scoped Down)	55
7.5	Archaeology and built heritage (Scoped Out)	57
7.6	Ground conditions and contamination (Scoped Out)	57
7.7	Waste (Scoped Out).....	58
7.8	Major Accidents and Disasters (Scoped Out)	59
8	SUMMARY OF KEY ISSUES	61
8.1	Request for a Scoping Opinion	61
8.2	Summary of Topics to be Scoped In, Scoped Down or Scoped Out of the EIA	61

1 INTRODUCTION

1.1 Overview

- 1.1.1 The purpose of this report is to inform a request for a Scoping Opinion from London Borough of Newham (LBN) in accordance with Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017 (referred to hereafter as the 'EIA Regulations').
- 1.1.2 This Scoping Report outlines the proposed structure, content and scope of the Environmental Statement (ES) to be submitted with a forthcoming Section 73 (S73) planning application, which will comprise amendments to the City Airport Development Programme 1 (CADP1) Planning Permission, 13/01228/FUL, granted in July 2016. This Scoping Report has been prepared by RPS and a team of specialist consultants on behalf of the Applicant, London City Airport (LCY).
- 1.1.3 Subject to the outcome of planned public consultation on the proposals, the 'minor-material' planning application will seek to vary conditions attached to the CADP1 planning permission to allow for:
- An increase in the passengers per annum from 6.5 million to 9 million;
 - An extension of operational hours on Saturday to allow flights to take place through the afternoon and into the evening, but no later than 22:00 (currently 12:30)¹.
 - Consequential modifications to daily and other limits and changes to temporary facilitating works.
- 1.1.4 These consequential modifications include:
- An increase in the number of flights permitted between 06:30 and 06:59, from 6 flights to 12 flights and more flexibility for arrivals that have suffered unavoidable delays in the last half hour of operations;
 - Greater flexibility in the location of aircraft stands given the increased dimensions of new generation aircraft compared to current variants; and
 - Retention of temporary facilities required to maintain levels of service and safe operations, until they are required to be removed in accordance with the details approved in the Construction Phasing Plan (CPP) approved pursuant to Condition 4
- 1.1.5 This planning application will permit the future sustainable growth of airport up to 2031 and beyond and will hasten the transition to 'new generation' aircraft which are quieter and more fuel efficient than the existing fleet at LCY. For the purpose of this scoping report this is referred to as the Proposed Development. Further details are provided in Section 2 of this scoping report.
- 1.1.6 The Applicant intends to submit the S73 application to LBN in October 2022.

¹ For the purposes of this scoping report, it is assumed that the worst case would be 22.00 but the final extension will be subject to the planned public consultation ahead of submitting the Section 73 planning application.

1.2 Site Location and Context

- 1.2.1 The airport is located between the Royal Albert Dock and King George V (KGV) Dock, adjacent to the Woolwich Reach and Gallions Reach of the River Thames. Figure 2 below shows the location of the Airport, whilst Figure 2 shows the layout of the airport with key features denoted.
- 1.2.2 The Airport is approximately 6 miles east of the City of London, approximately 2 miles east of Canary Wharf and 0.5 miles away from the ExCeL Exhibition and Conference Centre. The surrounding area comprises of a mix of residential, industrial and commercial uses. There is also a significant amount of planned development and regeneration in the vicinity of the Airport.

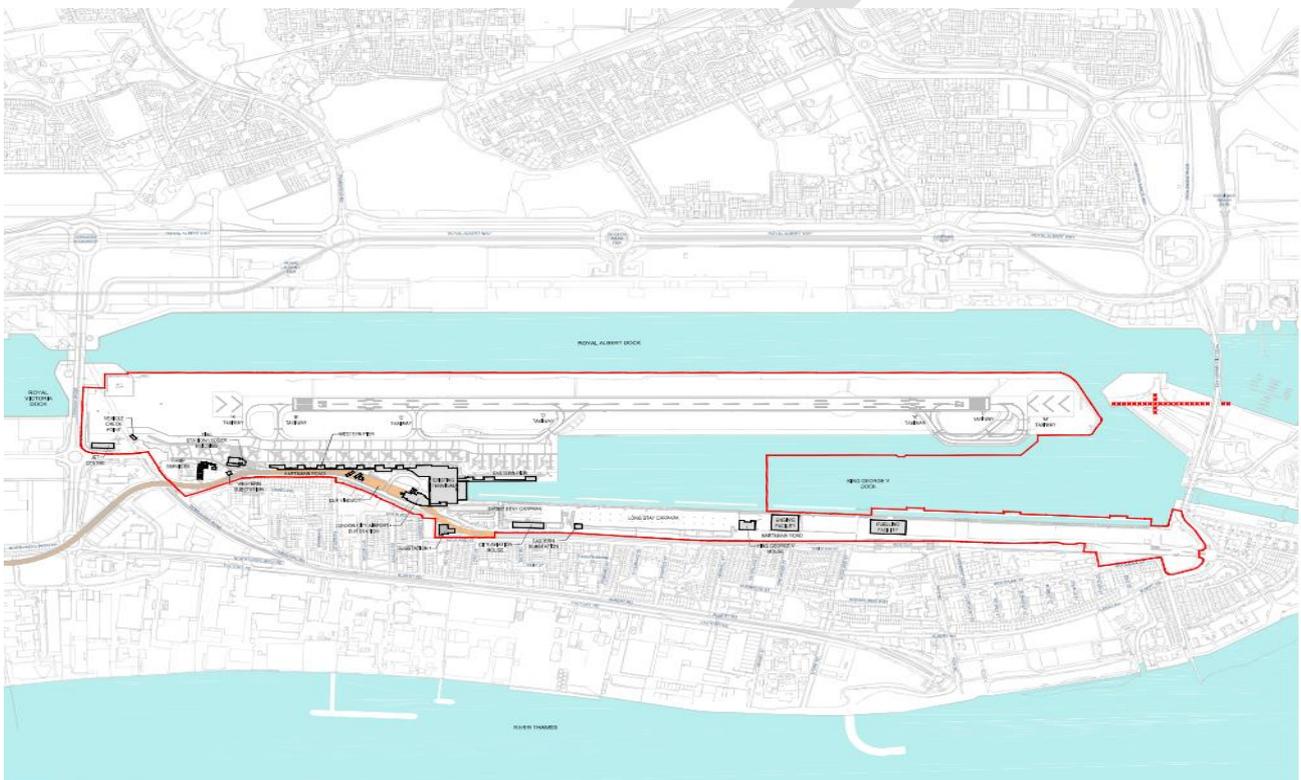


Figure 1: Site Location plan (Draft to be updated)

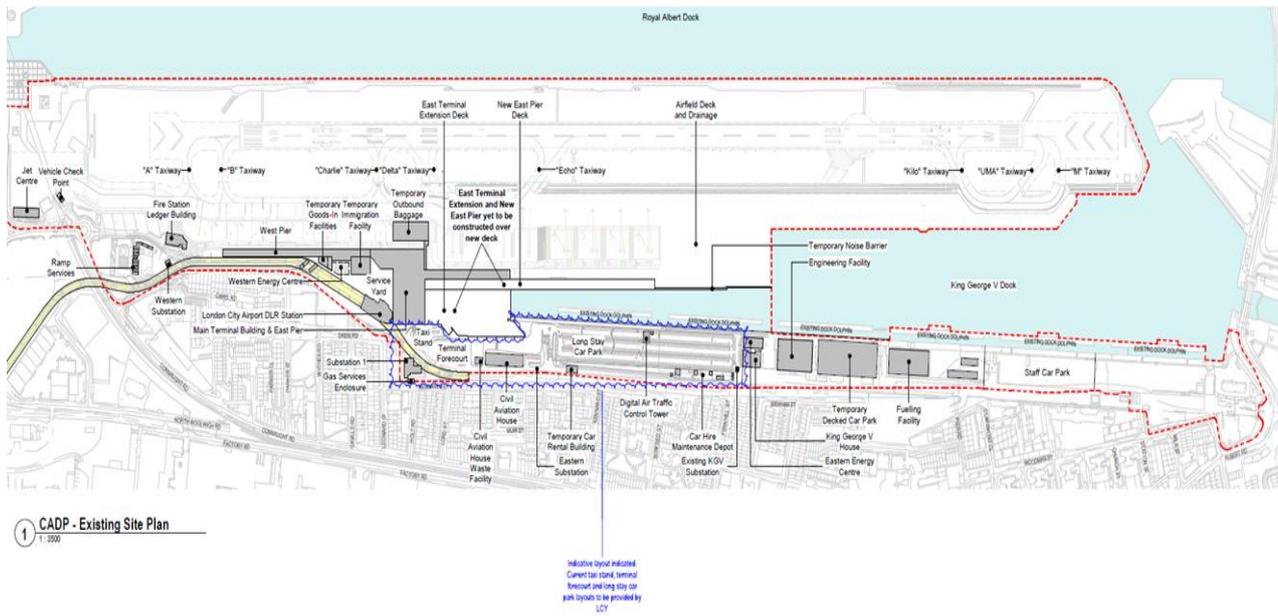


Figure 2: Site Plan with Key Features (draft to be updated)

1.2.3 The land around the airport is in urban use with a mix of clearly defined zones including residential and industrial/commercial areas located on the northern and southern banks of the River Thames at Silvertown and North Greenwich. Significant non-residential uses in the area include the large Tate and Lyle factory to the south of the airport; the University of East London (UEL) on the north-east side of the Royal Albert Dock; the Royals Business Park to the north; the London Regatta Centre on the north-west side of the Royal Albert Dock; the Excel Exhibition Centre and three adjacent high rise hotels to the west on the northern side of Royal Victoria Dock; and several areas of vacant land including land at Albert Basin to the east and a large expanse of land on the north side of Royal Albert Dock between UEL and Royals Business Park. Some of this land is currently being developed. There are numerous other proposed developments in the local area (with planning permission) that have not yet been commenced. Moreover, The London Plan (2021) and draft Royal Docks and Beckton Riverside Opportunity Area Planning Framework (OAPF) envisages 31,500 new homes and 40,000 new jobs up to 2041.

1.3 Environmental Impact Assessment

Need for an Environmental Impact Assessment

1.3.1 Environmental Impact Assessment (EIA) is a process for ensuring that the likely significant effects of a new development on its immediate and surrounding environment are fully identified and taken into account before that development is allowed to proceed.

1.3.2 The Department for Levelling Up, Housing and Communities' (DLUHC) Planning Practice Guidance² states that the purpose of EIA is:

“to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision-making process.”

1.3.3 The proposed variations to the conditions of CADP1 permission are classified under ‘changes and extensions’ in accordance with Schedule 2 (13) of the EIA Regulations, namely:

“(b) Any change to or extension of development of a description listed in paragraphs 1 to 12 of column 1 of this table, where that development is already authorised, executed or in the process of being executed.”

1.3.4 As the project has the potential to give rise to significant environmental effects, LCY has decided to undertake an EIA voluntarily, without recourse to requesting a Screening Opinion from LBN. Accordingly, an Environmental Statement (ES) will be prepared to report the findings of the EIA and this will be submitted in conjunction with the forthcoming S73 planning application. This new ES will also provide continuity with and act to update the findings of original EIA, as reported in the CADP1 Updated Environmental Statement (UES, September 2015).

1.3.5 RPS Planning and Development Ltd. (RPS) and a team of topic specialists (including Bickerdike Allen and Partners, Air Quality Consultants, Steer, Quod and York Aviation) have been commissioned by the Applicant to prepare the ES in accordance with the EIA Regulations and other relevant guidance and standards.

Purpose of Scoping

1.3.6 Determining the scope of the component technical assessments is a key part of the EIA process. The scoping process identifies the potential for significant environmental effects to occur (prior to mitigation) as a result of the proposed development and the methods that will be used to assess the environmental effects. It also identifies the aspects of the environment (the ‘topics’) that should be scoped out from the assessment where it is unlikely there would be significant effects on the environment.

1.3.7 While scoping is not a statutory requirement under the 2017 EIA Regulations, the preparation of a scoping report is considered best practice as it identifies, at an early stage, the key issues to be addressed in the ES.

1.3.8

1.3.9 **Table 1.1** details the locations of where the specific information required for inclusion within the scoping report is contained within this document, in accordance with Regulation 15(2).

Table 1.1: Location of Information for Compliance with Regulation 15(2)

Information	Location in this Scoping Report
A plan sufficient to identify the land.	Figure 1 and Appendix 1

² Department for Levelling Up, Housing and Communities' (DLUHC) Planning Practice Guidance: Environmental Impact Assessment (last updated May 2020). [Online]. <https://www.gov.uk/guidance/environmental-impact-assessment>

Information	Location in this Scoping Report
A brief description of the nature and purpose of the development.	Sections 1 and 2
The possible effects of the proposed development on the environment.	Sections 2, 5 and 6
An overview of the conditions present on site and in the surrounding area, together with a brief overview of the relevant planning history and policy context.	Sections 2, 5 and 6
How alternatives to the proposed development will be considered.	Section 3
List of known committed developments for purposes of cumulative assessment.	Section 3 and Table 3.1
The proposed approach to the EIA and an overview of the key environmental topics to be assessed (i.e. “scoped in” topics), together with those matters which warrant some contextual consideration (i.e. “scoped-down” topics) and the issues not requiring any further assessment or consideration (i.e. “scoped out” topics). This exercise has been completed with reference to legislative and policy documents and Part 1 of Schedule 4 of the EIA Regulations 2017 as is reasonably required to assess the likely significant environmental effects of the development.	Sections 3 and 4
Outlines the scope and assessment methodology (including the significance criteria to be adopted) for assessing the likely significant environmental effects to be employed for each respective discipline to be reported in the ES.	Section 5
The proposed structure and format of the ES.	Section 3 and Table 3.2

- 1.3.10 The opportunity to include additional information beyond the minimum requirements of the EIA Regulations has been taken in order to provide the local planning authority (LBN), statutory consultees and other stakeholders with a better understanding of the proposed approach to the EIA process, the various technical assessments being undertaken and the intended structure of the ES.
- 1.3.11 Scoping is an important, though optional, exercise undertaken to focus the EIA and resultant ES on likely significant environmental effects and to avoid the unnecessarily complicated examination of minor (insignificant) issues. In particular, environmental statements should not be scoped so widely as to become unnecessarily long and cumbersome and, as such, less relevant and less useful for their intended purpose, *i.e.* to inform the decision makers of the main and likely significant environmental effects of proposed development, accounting for availability and effectiveness of mitigation and enhancement measures.
- 1.3.12 This matter is addressed by the Government’s Planning Practice Guidance (PPG) on EIA:

“Whilst every Environmental Statement should provide a full factual description of the development, the emphasis should be on the “main” or “significant” environmental effects to which a development is likely to give rise. The Environmental Statement should be proportionate and not be any longer than is necessary to assess properly those effects. Where, for example, only one environmental factor is likely to be significantly affected, the assessment should focus on that issue only. Impacts which have little or no significance for the particular development in question will need only very brief treatment to indicate that their possible relevance has been considered.”
- 1.3.13 Scoping is an ongoing process, with formal consultation undertaken by the local authority with the statutory bodies (e.g. Natural England, Historic England, Environment Agency, Highways Authority etc.) regarding the proposed technical, geographic and spatial scope of the EIA upon receipt of the

scoping request. The local authority should then issue their Scoping Opinion at the end of the five-week statutory period.

1.3.14 During this time, the Applicant and their technical team will continue to undertake informal consultation with LBN and the relevant consultees themselves, to ensure that any queries on the scope of the EIA can be addressed beforehand and that the Scoping Opinion is based on the most recent discussions and understanding of the proposed development and its likely significant effects.

1.3.15 Pursuant to Regulation 15(4) of the EIA Regulations an ES must:

(a) “be based on the most recent scoping opinion or direction issued (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion or direction); and

(b) include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment.”

Requirements of an Environmental Statement

1.3.16 As required by Regulation 18(3) of the EIA Regulations, the ES will include “at least”: a description of the development proposals; likely significant effects of the development proposals on the environment; a description of measures envisaged to avoid, prevent or reduce likely significant adverse effects; and, a description of reasonable alternatives studied by the Applicant.

1.3.17 The requirements of Regulation 18(3) are detailed in full within Schedule 4, which is replicated in Table 1.2 below. These are the mandatory information requirements for the ES, and so not dependent on the outcome of the Scoping Opinion.

Table 1.2: Specified Information to be Contained within an ES

Schedule 4 – Information for Inclusion in Environmental Statements	
1.	Description of the development, including in particular: <ul style="list-style-type: none"> a. description of the location of the development; b. a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; c. a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; d. an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.
2.	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.
3.	A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

Schedule 4 – Information for Inclusion in Environmental Statements	
4.	A description of the factors specified in Regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.
5.	<p>A description of the likely significant effects of the development on the environment resulting from, inter alia:</p> <ol style="list-style-type: none"> a. the construction and existence of the development, including, where relevant, demolition works; b. the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources; c. the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste; d. the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); e. the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources; f. the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; g. the technologies and the substances used. <p>The description of the likely significant effects on the factors specified in Regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the relevant environmental protection objectives established at the national and EU level.</p>
6.	A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.
7.	A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.
8.	A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments. 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.
9.	A non-technical summary of the information provided under paragraphs 1 to 8.
10.	A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.

Structure of this Scoping Report

1.3.18 The remainder of this report is structured as follows:

- Section 2: Overview of the proposed development;
- Section 3: The proposed approach to the EIA Methodology;
- Section 4: Overview of the proposed EIA Technical Chapters;

- Section 5: Topics to be 'scoped in' for inclusion within the EIA;
- Section 6: Topics proposed to be 'scoped down' or 'scoped out' of the EIA; and
- Section 7: Summary of Key Issues.

DRAFT

2 PLANNING BACKGROUND, AVIATION FORECASTS AND EIA ASSESSMENT YEARS

2.1 CADP1 Planning Permission

2.1.1 The City Airport Development Programme (CADP1) planning application (13/01228/FUL) was granted planning permission by the Secretaries of State for Communities and Local Government and Transport in July 2016 following an appeal and public inquiry which was held in March 2016. The 2015 Updated Environmental Statement (UES) for CADP1 was prepared in advance of and examined as part of the Planning Inquiry. Specifically, planning permission was granted for the following:

- a) *Demolition of existing buildings and structures;*
- b) *Works to provide 4 no. upgraded aircraft stands and 7 new aircraft parking stands;*
- c) *The extension and modification of the existing airfield to include the creation of a taxiway running parallel to the eastern part of the runway and connecting with the existing holding point;*
- d) *The creation of a vehicle access point over King George V dock for emergency vehicle access;*
- e) *Laying out of replacement landside Forecourt area to include vehicle circulation, pick up and drop off areas and hard and soft landscaping;*
- f) *The Eastern Extension to the existing Terminal building (including alteration works to the existing Terminal Building) to provide reconfigured and additional passenger facilities and circulation areas, landside and airside offices, immigration areas, security areas, landside and airside retail and catering areas, baggage handling facilities, storage and ancillary accommodation;*
- g) *The construction of a 3 storey Passenger Pier to the east of the existing Terminal building to serve the proposed passenger parking stands;*
- h) *Erection of a noise barrier at the eastern end of the proposed Pier;*
- i) *Erection of a temporary noise barrier along part the southern boundary of the Application Site to the north of Woodman Street;*
- j) *Western Extension and alterations to the existing Terminal to provide reconfigured additional passenger facilities and circulation areas, security areas, landside and airside offices, landside retail and catering areas and ancillary storage and accommodation;*
- k) *Western Energy Centre, storage, ancillary accommodation and landscaping to the west of the existing Terminal;*
- l) *Temporary Facilitation works including erection of a noise reduction wall to the south of 3 aircraft stand, a Coaching Facility and the extension to the outbound baggage area;*
- m) *Works to upgrade Hartmann Road;*
- n) *Landside passenger and staff parking, car hire parking and associated facilities, taxi feeder park and ancillary and related work;*
- o) *Eastern Energy Centre;*
- p) *Dock Source Heat Exchange System and Fish Refugia within King George V Dock; and*
- q) *Ancillary and related works”.*

- 2.1.2 Whilst the new stands, taxiway and other structures (i.e. most of the elements covered by items a to d above) have since been built, the remaining CADP1 works were put on hold in early 2020 due to the outbreak of the Covid-19 pandemic and the adverse effect this had on the airport's business, flights and passenger numbers. This has also resulted in the longer-term retention of various temporary facilities at the airport, including the Temporary Immigration Facility (TIF) and Temporary Outbound Baggage (OBB) structure.
- 2.1.3 At the same time that permission was secured for CADP1, outline planning permission was also granted for a 260 room hotel (CADP2, planning ref. 13/01373/OUT). However, this this permission has not been implemented to-date.
- 2.1.4 In addition, since 2016, a number of specific structures and airfield enhancements have been built out or implemented under the airport's permitted development rights, in accordance with Part 8, Class F of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended). These changes are denoted on Figure 2 above and include:
- The Digital Air Traffic Control Tower (DATCT) to the south of KGV Dock
 - Temporary decked carpark to the east of the DATCT
 - Runway and taxiway rehabilitation works
 - Replacement of airfield grassland areas with artificial grass (works ongoing)
 - Introduction of an Engineered Material Arrestor System (EMAS) at either end of the runway (works due to commence in summer 2022).
- 2.1.5 It is now anticipated that the remaining CADP1 works will be built out over a more prolonged period – commencing in 2024 and being completed around 2031. This will be subject to a further revision to the Construction Phasing Plan (CLP), in accordance with condition 4 of the CADP1 permission.

2.2 Proposed Amendments to Conditions

London City Airport (LCY) is seeking approval to revise planning conditions attached to the CADP1 planning permission pursuant to Section 73 (S73) of the Town and Country Planning Act 1990 (as amended).

The proposed S73 application will comprise:

'Application to vary conditions attached to planning permission 13/01228/FUL dated 26 July 2016 (as varied) to allow up to 9 million passengers per annum (currently 6.5 million), flights to take place on Saturday PM, modifications to daily and other limits and changes to temporary facilitating works'

- 2.2.1 The number of flights will remain at 111,000 air transport movements (ATMs) per annum and 45 ATMs per hour as approved under the CADP1 permission and there would be no change to the 8 hour night-time curfew currently in operation at LCY.
- 2.2.2 There will be no changes to the number of aircraft stands, to the runway, other infrastructure or the design and layout of the buildings as approved under the CADP1 permission and subsequently varied by several non-material amendment applications (as listed in Annex 2 of this report).
- 2.2.3 However, the disposition and layout of stands to the west of the airfield will be altered to allow parking of larger Code C aircraft and thereby facilitate greater resilience in the operation of the airport and the accommodation of new generation aircraft. This may also necessitate the removal of the existing Corporate Aviation Facility, known as the 'Jet Centre'.

- 2.2.4 Where they remain appropriate, all relevant existing environmental and operational controls, strategies and systems approved through the other conditions attached to the CADP1 planning permission and the associated Section 106 planning agreement will continue to apply (and/or be re-imposed under a new planning permission and Section 106 Agreement with LBN). The future growth of the airport will also be influenced by LCY's new Sustainability Roadmap.

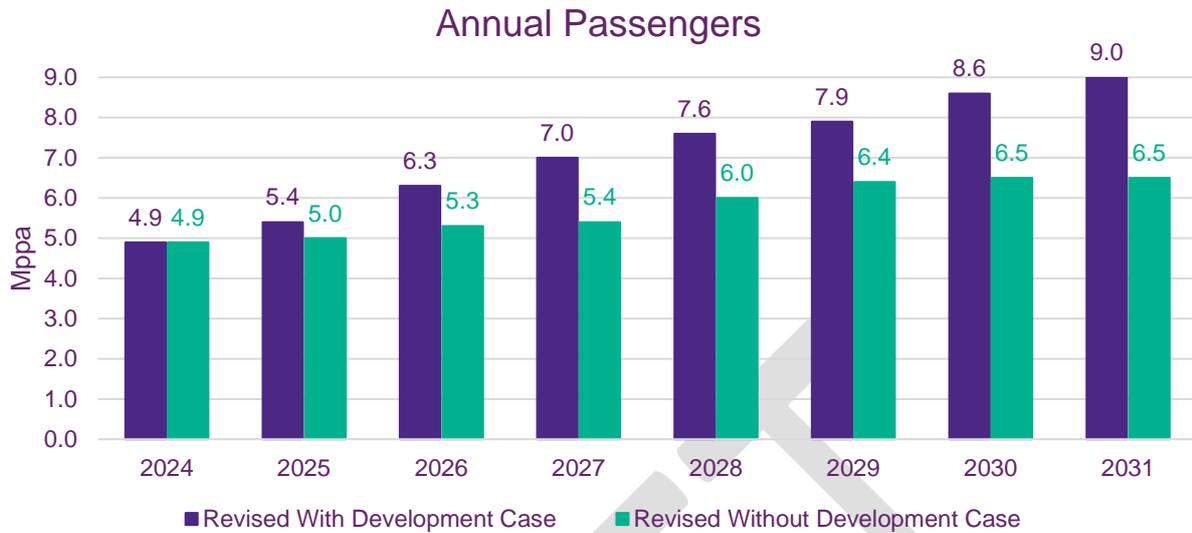
2.3 ATM and Passenger Forecasts

Previous CADP1 Forecasts and Recent Trends

- 2.1 The S73 planning application is an essential component of the airport's Covid-19 recovery plan to 2031 and beyond and seeks to make best use of the runway and existing and approved infrastructure in accordance with the Government's Making Best Use (MBU) policy.
- 2.2 The original demand forecasts underpinning CADP1 planning application and assessed in the 2015 UES, projected that the airport would reach 6 million passengers per annum (mppa) by 2025 in the Core Case and that, if the airlines grew their load factors faster than originally anticipated, the passenger throughput could reach 6.5 mppa by 2025. Pre-Covid 19, the airport was on track to achieve these forecasts, with more than 5 million passengers handled in 2019 in line with expectations.
- 2.3 Changes in the nature of the airlines using the airport, with the demise of Flybe and greater emphasis on BA Cityflyer, has resulted in more of the larger aircraft types being used than were envisaged when the CADP1 demand forecasts were first prepared. Whereas the CADP1 projections expected 5.1 million passengers in 2020 to be handled on 93,000 commercial aircraft movements, in practice this was attained in 2019 with just over 80,000 commercial aircraft movements reflecting the increased size of aircraft and passenger load factors. Hence, the consented 111,000 annual aircraft movements can now accommodate many more passengers than initially predicted.
- 2.4 Furthermore, since CADP1 was first planned, the profile of demand using LCY has changed, with a more even balance of business and leisure traffic as well as more airlines basing their aircraft at the airport overnight. The changes in the passenger mix have resulted in changes in airline operating patterns, with relatively less dependence on the traditional peaks of traffic at LCY (i.e. inbound in the morning and outbound in the early evening). Also, due to the fact that there are more aircraft based overnight at the airport, this results in some spreading of the peak throughout the day. As a consequence, the passenger demands on the terminal in the peak hour are less than originally expected and the planned CADP1 infrastructure can handle more passengers on an annual basis than originally assumed, particularly when the effect of new technologies such as self-service check-in are taken into account.

Current Forecasts

- 2.5 The detailed forecast parameters (prepared by York Aviation on behalf of LCY) will inform the reassessment of capacity provided by the CADP1 scheme and the required phasing to meet the future demand forecasts. This will take into account the current implementation of the project and the provision of the temporary facilities, and it will be demonstrated that the planned works can accommodate demand up to 111,000 annual aircraft movements.
- 2.6 On the basis of the changes to the conditions as proposed, the provisional demand projections for the core and fallback case are set out in the graphs below; albeit these may change slightly as the forecasts are further refined:



- 2.7 As illustrated above, in the ‘with development’ scenario (also known as the Development Case) it is predicted that airport will grow progressively from 2023 onwards, with passenger numbers reaching 7.0 mppa by 2027 and 9.0 mppa by 2031. This growth would be stimulated by, amongst other factors, the proposed extension to Saturday afternoon opening hours which will act to incentivise airlines (especially BA Cityflyer) to re-fleet more rapidly and to base more aircraft at the airport.
- 2.8 For the fallback scenario, without approval of the S73 application (also known as the Do Minimum case), it is assumed that all existing operational conditions relating to the CADP1 planning permission would remain in force. This would have the result of suppressing growth, such that the existing 6.5 mppa cap would not be reached until 2030.
- 2.9 Jet Centre aircraft movements are expected to grow from historic levels of around 5,000 movements a year to 9,000 movements a year in the Do Minimum/ fallback case. However, in the Development Case passenger aircraft movements (PATMs) would continue to increase over time up to the 111,000 annual movements permitted, thereby eventually squeezing out all but a few Jet Centre movements.

Forecasting Work to inform the EIA

- 2.10 Within the ES accompanying the S73 application, various aviation and macro-economic growth trends will be set out to support the LCY specific forecasts. These take into account any prolonged influence of the Covid-19 pandemic and draw upon the latest Department for Transport's UK Aviation Forecasts and the econometric relationships used to derive the UK air passenger demand forecasts. The forecast future growth rates for UK air passenger demand are derived from these econometric relationships, having regard to the latest post-Covid-19 economic forecasts, projected carbon costs and other factors impacting the cost of air travel. Account is also be taken of local economic growth factors in the area served by LCY.
- 2.11 LCY's share of the market is taken into account having regard to historic trends, competition from other airports serving London and the nature of the air services offered. Detailed forecasts will be set out having regard to LCY's unique characteristics and the trend for it to increasingly serve local leisure as well as business markets.
- 2.12 In addition to the core forecasts (considered the 'most likely' outcome for the purpose of the EIA), faster and slower growth cases will be set out reflecting current market uncertainties and to illustrate plausible timeframes over which 111,000 annual aircraft movements may be taken up at LCY. The fleet mix associated with each scenario will be set out in the ES.
- 2.13 The ES will include further details relating to the forecasts to inform the environmental assessments, including:
- Busy day timetables
 - Annual fleet mix
 - 92 day outputs for noise assessment

2.4 EIA Assessment Years and Scenarios

- 2.1 As illustrated by the summary forecast tables above, the existing 6.5mpa cap will have effectively been reached by 2027 in the Development Case (DC) in contrast to 2030 under the Do Minimum (DM) scenario.
- 2.2 The assessment years for the EIA have been selected as follows, albeit not all years will be assessed for each topic:
- 2019 – the pre-Covid-19 **Baseline Year**
 - 2025 – the **Future Baseline Year** when traffic has recovered to pre-Covid-19 levels
 - 2024/ 2025 – **Worst Case Year for Noise**
 - 2027 – the **Transitional Year** when 6.5 mppa is exceeded in the Development Case
 - 2031 – the **Principal Assessment Year** when 111,000 annual aircraft movement cap is reached and there are predicted to be 9.0 mppa – this will be the main focus of the EIA for comparing the environmental effects between the DM and DC.
 - 2024 – 2031 – **Revised CADP1 Construction Programme**; being built out in phases to match demand.

Sensitivity tests for alternative forecasts or assessment years:

- **Slower Growth Scenario** - 2033 (fixed by 111k movements) or 2034 (fixed by 9 mppa) (TBC).

- **Faster Growth Scenario – 2029 (TBC)**

2.3 In addition to the above, construction related effects will be assessed over a seven-year timeframe; from 2024, when the CADP1 works are scheduled to recommence, to 2031 when the last element of the built infrastructure is expected to be completed. This assessment will be informed by a revised construction phasing plan which be presented in the ES.

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3 POLICY CONTEXT

3.1 National Planning Policy and Guidance

National Planning Policy Framework

- 3.1.1 The NPPF should be read alongside the National Planning Practice Guidance (PPG) online resource.
- 3.1.2 Central to the NPPF (2021) is a positive approach to growth and the presumption in favour of sustainable development. There are three dimensions to sustainable development: an economic role, a social role and an environmental role. These should not be seen in isolation as economic growth can contribute to higher environmental standards.
- 3.1.3 Specific aviation policies are limited in the NPPF.

Aviation 2050: The Future of UK Aviation

- 3.1.4 In July 2017, the Government published 'Beyond the Horizon: The Future of UK Aviation' providing the next steps towards Aviation 2050. This was a call for evidence as part of the development of a new aviation strategy that looks beyond the development of an additional runway at Heathrow and sets out a long-term vision for the aviation sector to 2050. The document supports the growth of the UK aviation sector and aims to:

"Achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain."

- 3.1.5 Following consultation on 'Aviation 2050 – the future of UK' in December 2018-February 2019, a new Aviation Strategy is expected although publication timescales remain unclear.

Jet Zero Strategy

- 3.1.6 In July 2021 Government published 'Decarbonising Transport – A Better, Greener Britain' which includes a series of Government commitments on aviation (page 116 onwards), including to consult on measures to achieve 'Jet Zero' by 2050 and fund research to accelerate the sector's take up of zero emissions technologies. The aviation sector specific 'Jet Zero Consultation' was published at a similar time and sought views on a range of measures.
- 3.1.7 On 21 March 2022, the Government published a technical consultation (which ran until 25 April 2022) on updated evidence and analysis on the implications of Jet Zero measures. York Aviation will take this into account in their demand forecasts for the airport.

UK Airspace Policy

- 3.1.8 Following consultation on UK Airspace Policy between January and May 2017 the new airspace change process became effective from January 2018 with detailed guidance being contained within CAP1616 'Airspace Design'. This guidance supports the process of airspace modernisation to deliver benefits for the UK economy, passengers, communities and the environment.

3.2 Local Planning Policy

- 3.2.1 The Development Plan for LBN comprises the London Plan (March 2021) and the Newham Local Plan (December 2018).

London Plan

- 3.2.2 Policy T8 (Aviation) of the London Plan is supportive of the role aviation plays in the economy, with the supporting text requiring best use of existing airport capacity. The application will need to directly address a number of aspects of policy T8 including:

- Criteria B – which requires development proposals to ‘include mitigation measures that fully meet their external and environmental costs, particularly in respect of noise, air quality and climate change’ and requires expansion scheme to demonstrate ‘an overriding public interest or no suitable alternative solution with fewer environmental impacts’
- Criteria E – which requires proposals changing airport operation to take ‘full account of their environmental impacts and the views of affected communities..’
- Criteria G – requires airports to work with TfL and others to increase the proportion of journeys by sustainable means.

- 3.2.3 The supporting text will also be important for the application to address as follows:

‘10.8.4. Any airport expansion proposals should only be taken forward on the basis that noise impacts are avoided, minimised and mitigated, and proposals should not seek to claim or utilise noise improvements resulting from technology improvements unrelated to expansion. Nor should expansion result in significant numbers of new people being exposed to new or additional noise harm.

10.8.5 Any airport expansion proposals should not worsen existing air quality or contribute to exceedance of air quality limits, nor should they seek to claim or utilise air quality improvements resulting from unrelated Mayoral, local or national policies and actions. Airport expansion should also incorporate air quality positive principles to minimise operational and construction impacts.’

- 3.2.4 On 7 February 2022, the GLA consulted on a revised version of the Royal Docks and Beckton Riverside Opportunity Area Planning Framework. Intended to provide more area specific policies to assist the delivery of Opportunity Areas, the draft document says little about the current or future role of the Airport. LCY submitted representations drawing attention to the Airport’s Masterplan (2020).

Newham Local Plan

- 3.2.5 The Newham Local Plan was adopted on 10 December 2018. The Airport is allocated as an ‘Employment Hub’ (ref. E11) for visitor economy, business and logistics. Policy J1 ‘Business and Jobs Growth’ states that proposals will be supported if they address the spatial strategy which seeks to focus attractions and facilities at employment hubs (which includes the Airport).
- 3.2.6 Supporting paragraph 1.23 states that the Airport is a major employer and catalyst for investment that supports London’s international role.
- 3.2.7 Part G of Policy S3 ‘Royal Docks’ states that the Airport will continue to perform an important role in the area’s international business and visitor connectivity and as the focus to an employment hub

with measures implemented to support the optimisation of existing capacity and further mitigation of its environmental impacts, including improvements to public transport. Policy INF1 'Strategic Transport' states proposals should address strategic principle and the spatial strategy which for air travel includes: measures to support the optimisation of airport capacity, including access (potentially via a new Elizabeth Line station) and other freight and passenger facilities for operational safeguarding.

- 3.2.8 Issues and options in respect of a replacement local plan were published for consultation in October 2021. No significant change in policy approach towards the airport was raised and the Airport's representations sought to ensure that new local plan takes into account the growth and importance of the Airport as shown in the 2020 Masterplan.
- 3.2.9 LB Newham's Local Development Scheme is currently suggesting the submission of a draft replacement Local Plan for examination in December 2023.

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4 EIA METHODOLOGY

4.1 Summary of the EIA Process

- 4.1.1 In addition to the planning policy outlined in the previous section, the EIA will be undertaken in accordance with EIA specific guidance documents including the UK Government Planning Practice Guidance on EIA (May 2020) and the Institute of Environmental Management and Assessment (IEMA) Guidelines for environmental impact assessment, as well as topic specific guidance and assessment criteria, where appropriate.
- 4.1.2 The EIA will be consistent with, and in many respects comprise a continuation of, the previous environmental assessment process reported in the CADP1 Updated Environmental Statement (UES) of September 2015. As such, the topic-specific assessments will be revised to take account of the updated forecasts, changes to baseline conditions, assessment methodologies and policies and the new procedural requirements introduced by the 2017 EIA Regulations. It is important to note that, although consideration has been given to whether CADP, as amended by the proposed application, will have new or materially different likely significant effects, not all of the environmental effects of the CADP1 scheme need to be reassessed at this juncture as some are unaffected by the proposed S73 changes. Instead, such 'non-significant' topics have already been adequately assessed in the UES and, where appropriate, mitigated for through the discharge of pre-commencement planning conditions.
- 4.1.3 For the relevant 'scoped-in' topics, the EIA process will comprise the following main activities:
- Environmental baseline surveys, modelling and assessment;
 - Feedback into the S73 proposals and key mitigation measures to enable the scheme to be fixed, accounting for the potential environmental effects;
 - Determination of impact significance, mitigation and residual impacts of the final scheme; and
 - Complete and submit the ES with the planning application, including a Non-Technical Summary of the ES, as required by Schedule 4, Regulation 9 of the EIA Regulations.
- 4.1.4 With respect to identifying the likely significant environmental effects associated with the proposal, the ES will give due consideration to a range of potential effects associated with the amended CADP1 development, both beneficial and adverse, which could be deemed to be 'significant' on the basis of:
- the value/ importance of the resources and receptors that could be affected by the construction and occupation of the development;
 - the predicted magnitude of environmental change and/or impact experienced by these resources and receptors, accounting for their size, duration and spatial extent; and
 - options for avoiding, reducing, offsetting or compensating for any potentially significant adverse effects and the likely effectiveness of such mitigation measures.
- 4.1.5 Subsequent sections of this EIA scoping report set out the range of topics and detailed issues which are proposed to be considered in the EIA, whilst the principal/ common considerations of the EIA are described below.

4.2 EIA Approach

Impact Identification

- 4.2.1 The baseline environment will be defined in the ES within each of the technical chapters based on information gathered through desk-based studies and, where appropriate, field survey work.
- 4.2.2 The environmental impacts of the proposed development, during the construction and operation phases of the development will be assessed against the baseline conditions.
- 4.2.3 All operational effects will be assessed by quantifying the difference between the Do Minimum (6.5 mppa) scenario and the Development Case (9.0 mppa) in the Principal Assessment Year of 2031, as described above. For some topics (e.g. air quality and noise) it is also relevant to consider the change in environmental conditions between the Baseline Year (2019), the Transitional Year (2027) and Principal Assessment Year (2031). Where this is the case, this will be explained further in the individual topic chapters of the ES.
- 4.2.4 There is also the potential for some temporary construction effects (e.g. noise, dust, heavy goods vehicle (HGV) traffic etc.) to arise during the construction of the remaining elements of the CADP1 infrastructure, including the terminal forecourt, New East Pier (NEP), East Terminal Extension (ETE) and West Terminal Extension (TWE). Accordingly, such effects will be assessed within the respective technical chapters of the ES, based on a revised Construction Phasing Plan (CPP). It should be noted however that due to the limited extent, location and nature of these construction works, significant environmental effects are not anticipated as long as appropriate environmental controls are in place, such as a Construction Environmental Management Plan (CEMP), as required under the existing CADP1 condition 88.
- 4.2.5 The characterisation of impacts will vary between technical chapters, according to respective best practice guidance. However, the following principles will be adhered to:
- Impacts will be quantified where possible, in terms that are readily understandable;
 - Characteristics of an impact will be described, identifying the extent, magnitude, duration, frequency, reversibility, nature (direct or indirect), and probability of an impact;
 - Changes over time will be considered, where applicable, i.e. where characteristics may change as a project develops/matures;
 - Justification will be provided where qualitative judgements or estimates are made;
 - In the cases of uncertainty, predictions will include a reasonable 'worst-case' approach;
 - Consistent terms referring to quantitative scales will be defined, e.g. long-term/short-term, high/medium/low magnitude;
 - Consideration will be given to any potential indirect effects: and,
 - Cumulative (in combination) effects from other development schemes will be considered.

Consideration of Alternatives

- 4.2.6 In accordance with Schedule 4 of the EIA Regulations, the ES will contain:

"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."

4.2.7 The Government PPG on EIA states at paragraph 035 that:

"Where alternative approaches to development have been considered, the Environmental Statement should include an outline of the main alternatives studied and the main reasons for the choice made, taking into account the environmental effects."

4.2.8 As part of this consideration of alternatives, the ES will focus on the consequences of the 'Do Minimum' scenario, which will describe the environmental and socio-economic conditions at the site were the proposed development not to occur. No other alternatives are considered relevant in this instance.

Determining Significance

4.2.9 Prevailing good practice for EIA suggests that environmental impacts should be considered in terms of the importance, value or sensitivity of receptors and the predicted scale, or magnitude, of the potential effects. The significance of potential impacts should then be determined through consideration of respective sensitivity and magnitude.

4.2.10 The assessment of significance within the ES will be considered using a common scale, being described as either 'major', 'moderate', 'minor' or 'negligible' (which also includes neutral or no impact outcomes).

4.2.11 Where legal or otherwise definitive impact thresholds do not exist, the method for ascribing significance is left to the judgement of the topic specialists informed by best practice guidance within their professional discipline. Where methodologies have been adapted from specific industry recognised standards, this methodology will be set out in the corresponding chapters of the ES or the accompanying technical appendices.

4.2.12 Following their identification, all significant effects will be classified on the basis of their nature and duration as follows:

- **Beneficial** – effects that have a positive influence on receptors and resources;
- **Adverse** – effects that have a negative influence on receptors and resources;
- **Temporary** – effects that persist for a limited period only (due for example, to particular construction activities taking place for a short period of time);
- **Permanent** – effects that result from an irreversible change to the baseline environment (e.g. land-take) or which persist for the foreseeable future (e.g. noise from regular or continuous operations or activities);
- **Direct** – effects that arise from the impact of activities that form an integral part of the proposed development (e.g. direct employment and income generation) and which occur at the same time and place;
- **Indirect** – effects that arise from the impact of activities that do not explicitly form part of the proposed development (e.g. off-site infrastructure upgrades to accommodate the development), which may occur later in time and/or are geographically remote from the site, but are nonetheless reasonably foreseeable and measurable;

- **Secondary** – effects that arise as a consequence of an initial effect of the proposed development (e.g. induced employment elsewhere); and
- **Cumulative** – effects that can arise from a combination of different effects at a specific location or the interaction of different effects over different periods of time.

Assessment of Cumulative Effects

- 4.2.13 Under the EIA Regulations, the requirement for considering cumulative schemes has been restricted to 'cumulation' with other existing development and/or approved development'.
- 4.2.14 In their response to the technical consultation on EIA thresholds, the Department for Levelling Up, Housing and Communities (DLUHC) stated that urban development projects below the stated EIA screening thresholds "will not be likely to have significant effects either alone or in combination with other projects because of their nature, location or impact".
- 4.2.15 In accordance the PPG on EIA, only those schemes with planning permission need to be considered in the cumulative impact assessment.
- 4.2.16 The spatial scope of the cumulative effects assessment will comprise those consented developments located within 2km of the site, that meet the criteria above. This distance is largely informed by the scope of the transport assessment which will review the surrounding transport network and identify schemes located around the site and which could have the potential for cumulative traffic effects.
- 4.2.17 It is considered that schemes identified using the above criteria will sufficiently address the potential for cumulative ('in combination') environmental effects on air quality, noise, transport and socio-economics. However, many of these developments are likely to be built out and fully operational before 2024, and will therefore form part of the projected baseline for the EIA against which the environmental effects of the proposed development scheme will assessed (e.g. new residential receptors coming within the air noise contours). This distinction between 'cumulative schemes' and 'baseline schemes' will be further described in the ES, once the timeline for each development has been established.
- 4.2.1.2 Intra-cumulative effects will also be considered within the ES. This will take the form of a matrix identifying the sensitive receptors and the different effects arising from the proposed development experienced at each – for example, an individual receptor close to the site boundary may be affected by noise and visual effects.

4.3 Structure of the Environmental Statement

- 4.3.1 There is no defined structure for an ES, provided that it meets the requirements outlined in Regulation 18(3) of the EIA Regulations. This section sets out the proposed structure for the ES in this instance.
- 4.3.2 The ES will be presented in three separate parts:
- Volume 1 will be the main volume of the ES and will describe: the proposals, the alternative options considered, the baseline environmental conditions, the likely significant effects of the development, the proposed mitigation measures and the residual (remaining) environmental effects following the implementation of mitigation measures.
 - Volume 2 will contain the technical appendices for the ES.

- A Non-Technical Summary (NTS) will be produced of the information contained in Volumes 1 and 2 to describe the scope, methodology, results and conclusions of the ES in a concise form which is readily understandable to non-specialists.

4.3.1.2 The proposed structure of Volume 1 (the main volume of the ES) is presented in Table 4.1.

Table 4.1: Proposed Structure of the Volume 1 of the ES

Chapter	Chapter Title	Content
	Glossary & Abbreviations	List of abbreviations and glossary of terms (to be included before Chapter 1).
1	Introduction	Scheme background; scheme context; explanation of EIA process and the EIA Regulations; the structure of the ES; information on the project team and chapter authors; where to view hard copies of the ES; details on how to comment, what the determination period is etc.
2	EIA Methodology	Approach to EIA process, including: consultation, responses received and how/where issues have been addressed within the ES, discussion of issues scoped out of the EIA, structure of technical chapters and approach to assessment of residual impact significance.
3	Site Description & Development Proposals	Description of site and the wider study area; description of the elements of the development relevant to the assessment of its possible effects on the environment, including phasing, associated development etc.
4	Alternatives	Outline of the alternatives considered by the Applicant, focussing on the Do Minimum scenario.
5	Construction Environmental Management	Will describes the remaining build-out programme for CADP, based on a revised Construction Phasing Plan (CLP) and the proposed mitigation measures to be adopted through the Construction Environmental Management Plan (CEMP).
6-13	Technical chapters	Detailed assessment of each environmental topic area scoped into the EIA, as set out in later sections of this report.
14	Cumulative Effects	Assessment of cumulative effects of the proposed development with other identified committed schemes, on key receptors, and assessment of intra-cumulative effects.
15	Residual Effects Summary & Conclusions	Residual effects of the development, the mitigation measures proposed and how these are to be secured.

4.4 Structure of the Technical Chapters

4.4.1 The technical chapters of the ES will be structured as set out below:

Introduction

4.4.2 The introduction will provide a brief summary of what is considered in the chapter and will state the author and/or relevant technical contributor (Note: a full statement of competency for the whole EIA team will be provided in Volume 2 of the ES, as required by the EIA Regulations). Where appropriate, it will describe the assumptions and limitations related to the assessment of that topic and any constraints to undertaking the assessment.

Planning Policy and Legislative Context

- 4.4.3 This section will provide details of any relevant legal considerations or standards for the impact assessment, together with national, regional and local policy and Industry guidance that has informed the assessment. It will provide a topic-specific overview of any relevant existing planning conditions and legal obligations attached to the grant of the CADP1 permission.

Assessment Methodology and Significance Criteria

- 4.4.4 This section will provide details of:
- the methodology, technical, spatial and geographic scope of the assessment, with reference to any published methodological standards, professional guidelines and best practice that are particular to the topic;
 - the comments raised during scoping/ consultation process and a commentary on how any pertinent matters have been addressed within the assessment;
 - how baseline conditions have been assessed (e.g. site visits, surveys, review of publicly available data) and the scale of sensitivity and magnitude adopted within the assessment;
 - how significance has been assessed (e.g. whether a matrix or some other approach has been adopted);
 - any associated development (i.e. works which are required to facilitate the development but do not form part of the planning application, such as off-site utilities works) that is relevant to the assessment; and
 - any assumptions or limitations.

Baseline Conditions

- 4.4.5 The existing baseline conditions at the airport and surrounding area will be described for the environmental topic being considered. This will largely be based on 2019 data, supplemented by current (2022) surveys where necessary.
- 4.4.6 The projected baseline or 'Do Minimum scenario' will also be described to identify the conditions that are reasonably foreseeable in the future assessment year scenarios.
- 4.4.7 The baseline conditions section will describe the receptors or resources that could be impacted by the construction or operation of the proposed development and will state the relative sensitivity or importance of these. Together, this will provide the context against which the environmental effects of the development will be assessed.

Incorporated Mitigation

- 4.4.8 This section will be provided before the impact assessment section to account for any 'designed in' mitigation including those required under extant planning conditions, S106 obligations and other commitments made by the airport. As such, the assessment of effects will be undertaken on the basis that many such measures are already assumed as part of the future baseline.

Assessment of Effects

4.4.9 This section will present the assessment of potential effects/ impacts that are predicted to occur during the construction and operation of the proposed development. The assessment will include:

- The activities and physical elements of the development that are likely to give rise to particular effects, together with a more detailed description of such activities or elements where this would aid the reader's understanding of the assessment;
- The receptor(s) that are likely to be affected;
- Any specific embedded mitigation measures that have already been incorporated into the design of development in order to avoid or minimise the environmental effects (i.e. 'design mitigation');
- The impact (including consideration of any embedded mitigation measures);
- The magnitude, duration, reversibility, and overall significance of the impact, prior to further mitigation; and
- Whether further mitigation is required.

Further Mitigation and Monitoring

4.4.10 This section will include details of:

- The phase during which the mitigation or enhancement measures will be implemented;
- The mitigation and/or enhancement measure(s) being proposed;
- How each measure will be secured and when it will be triggered;
- The magnitude of the effect post-mitigation; and
- Whether the post-mitigation effect is adverse or beneficial.

Residual Effects and Conclusions

4.4.11 This section will be tabulated, and include details of:

- The residual effect following the implementation of mitigation/ enhancement measures; and
- The significance of the effect and whether it is adverse or beneficial, short, medium or long-term, direct or indirect, permanent or temporary, and reversible or irreversible.

5 PROPOSED SCOPE OF THE ENVIRONMENTAL STATEMENT

5.1 This section considers the potential significant environmental effects of the proposed development and therefore the technical topics proposed for inclusion within the ES. It should be noted that no significant (major) adverse effects are anticipated at this time, accounting for the adoption of suitable mitigation measures. However, this will need to be confirmed through the EIA process.

5.2 Table 5.1 summarises the proposed scope of the EIA and outlines the following technical topics to be:

- **‘Scoped In’** for detailed consideration within a dedicated chapter of the ES, as significant environmental effects (either positive or negative) are considered likely prior to mitigation, or, inadequate information existed at the point of writing this scoping report to definitively conclude that no significant effects would occur;
- **‘Scoped Down’** where the topic is of some relevance but will be largely unaffected by the uplift in passengers and the other proposed changes. As such, there would be no new or materially different likely significant environmental effects. Notwithstanding, further information on these topics will be provided in the ES based on recent baseline surveys, together with previous assessment work contained in the 2015 UES and subsequent Approval of Details (AoD) documents; and
- **‘Scoped Out’** of the EIA on the basis that it is highly unlikely for these topics to exhibit any new or materially different likely significant environmental effects as a result of the proposed changes, especially as there are no physical changes to the approved CADP1 infrastructure.

Table 5.1: Proposed Technical Scope of the ES

Topics to be Scoped Into the ES	Topics to be ‘Scoped Down’	Topics to be ‘Scoped Out’
Surface Access (Traffic & Transport)	Flood Risk & Drainage	Archaeology and Built Heritage
Air Quality	Ecology and Biodiversity	Ground Conditions
Noise & Vibration		Townscape and Visual Impact
Socio-economics		Major Accidents and Disasters
Carbon and Climate Change		
Human Health		

6 SCOPED IN TOPICS

6.1 Socio-economics

- 6.1.1 The socio-economic assessment will be undertaken by York Aviation and Quod. It will identify and assess the likely significant effects on socio-economic conditions associated with the Proposed Development.
- 6.1.2 National, regional and local planning and economic policies relevant to the Proposed Development will inform this chapter of the ES. In particular, the following policy documents will provide guidance in terms of assessing economic and social impact, identifying likely impacts and potential mitigation:
- The Aviation Policy Framework 2013;
 - Aviation 2050: The Future of UK Aviation 2018;
 - Beyond the Horizon: The Future of UK Aviation: Making Best of Use of Existing Runways 2018;
 - Airports National Policy Statement 2018;
 - Jet Zero Consultation documents (2021 and 2022);
 - Build Back Better: Our Plan for Growth 2021;
 - The London Plan 2021; and
 - The Newham Local Plan 2018.
- 6.1.3 The assessment of socio-economic impact of the Proposed Development will also be undertaken within the context of LCY's existing comprehensive community programme. For example, LCY not only generates and supports employment generally but also takes steps to ensure that jobs at the airport are accessible to local people. The assessment will therefore take account of how such existing initiatives might be integrated with the Proposed Development.
- 6.1.4 The assessment will review the historical socio-economic benefits and impacts to the local area, in particular commenting on matters raised through the consultation on the previous CADP1 application.

Establishing the Baseline and Relevant Assessment Years

- 6.1.5 The Baseline and Assessment Years will be as set out in Section 4 of this Scoping Report. The Baseline Year will be 2019. The Assessment Years will be 2025, 2027 and 2031. The assessment of socio-economic issues will be made in the context of those assessment years, both with and without the proposed development.
- 6.1.6 The assessment will be based on data collected by LCY on a regular basis, notably in relation to on-site employment, alongside a range of other publicly available demographic, economic and market data.
- 6.1.7 The socio-economic assessment will include a comprehensive review of the economic and social significance of LCY, in terms of its employment impact and wider impact on the London economy. This will include consideration of the effects associated with the operation of the airport and also the wider economic effects associated with the connectivity that the airport provides. This work will include consideration of the role that the airport plays in attracting and anchoring inward investment; driving business productivity through journey time and other savings; supporting the wider economy

by facilitating additional transport investment; facilitating additional overseas tourism spend (business and leisure) in the local area; and supporting local employment, skills development, regeneration and diversity in the local labour market.

Sensitive Receptors and Potential Effects

6.1.8 The socio-economic effects of the Proposed Development will be dependent on the various phases of its implementation. The main effects to be assessed are summarised in Table 6.1. Account will be taken of the phasing of the project and the likely employment and social impact at each key stage of the proposed development.

Table 6.1 - Socio-Economic and Community Effects

Effect/ Impact	Source
Employment effects (direct, indirect and induced) in the local area	An assessment of employment at LCY and the Gross Value Added (GVA) impact on the local economy.
The impact on the local jobs market	An analysis of the local labour market and skills levels.
The employment and GVA impact of the construction phase	An assessment of the employment effects of construction based on standard methodologies
The wider impact on the London economy of the ability of the Airport to grow	An up to date assessment of the wider socio-economic impact of LCY on the London economy in terms of business productivity, tourism and economic welfare effects. It will also consider impacts on key sectors and key growth areas.
The impact on the local community	An assessment of the likely employment impact on local residents, impact on skills development, impact on regeneration, effects from LCY’s community investment programme, and effects on diversity in the labour market..

Approach and Methodology

6.1.9 The 2019 socio-economic baseline conditions in the local area and in the broader London economy will be assessed using publicly available data. The assessment will then consider the current direct, indirect and induced employment and Gross Value Added (GVA) effects at the airport, including an assessment of the number and type of jobs taken up by residents in LB Newham and adjoining boroughs. This assessment will be undertaken using 2019 data available from the airport and its on-site employers as reported in the Annual Performance Report. 2019 has been selected as the baseline due to the effects of Covid-19 on employment levels, which are considered unrepresentative. In projecting forwards, account will be taken of the extent to which there have been structural changes in employment as a consequence of the pandemic.

6.1.10 The impact of the Proposed Development will be assessed for each of the relevant future assessment years in terms of the direct, indirect and induced employment and GVA at the airport and the likely impact on the local jobs market in Newham and adjoining boroughs.

6.1.11 The wider economic impact of the airport will be assessed in terms of the value of aviation services to existing and future users. This will include an assessment of inward investment and location decisions, trade effects, business productivity, socio-economic welfare effects, transport investment and overseas tourism spend (business and leisure) in the local area, which are facilitated by the presence and growth of the airport.

- 6.1.12 An assessment of the predicted effects of the proposed development on the local community will be made, within the context of the current social and community initiatives and programmes undertaken by the airport.
- 6.1.13 The assessment will compare and quantify, where possible, the impact of the Proposed Development in the relevant assessment years with the impact of no development.
- 6.1.14 The assessment will also consider employment impacts during the construction phase using an industry standard approach and based on the capital expenditure programme identified by LCY.
- 6.1.15 The 2015 UES considered the impacts of changes to the Public Safety Zone (PSZ) on the development of sites around the airport. A similar assessment is no longer necessary following new Government Guidance³ on the designation of PSZs which means that the extent of public safety zones is fixed by reference to physical distances rather than the number or type of aircraft movements. This means that the extent of the PSZ is the same with or without the development.

6.2 Surface Access

- 6.2.1 The Surface Access & Transport Chapter of the ES, prepared by Steer, will provide predictions of multi modal trips, focussing on peak hour passenger demand on the DLR, Elizabeth Line, taxis and buses. It will also evaluate the impacts of vehicular traffic generated by the airport on existing traffic, pedestrian and cyclist movements and car parking. It will assess the 'environmental' effects of traffic with reference to the IEMA guidelines.
- 6.2.2 The ES chapter will rely on transport generation characteristics and highway capacity assessments, including trip generations/distributions, that will be set out in detail as part of the Transport Assessment (TA) to be submitted as a separate document in support of the S73 planning application. The scope and methodology of the TA will be agreed with Transport for London (TfL) and LBN Highway Authorities.
- 6.2.3 The ES Chapter will also provide a summary of traffic data utilised for the transport, air quality and noise assessments within the EIA.
- 6.2.4 Steer will also consider the transport impacts of the remaining construction activities associated with the development.

Baseline Transport Conditions

- 6.2.5 London City Airport is directly accessed by London City Airport DLR station. This provides direct connections to Woolwich in the south, Stratford to the north and Bank in Central London to the west. It provides direct connections to the Jubilee, Hammersmith & City, and District Line London Underground services and C2C, TfL Rail, London Overground and Greater Anglia, national rail services.
- 6.2.6 From the TfL website, London City Airport currently has a good Public Transport Accessibility Level (PTAL) of 3 (where 1 is the lowest level and 6b the highest level achievable).
- 6.2.7 From 2022, the Elizabeth Line will commence services between Reading, Heathrow, Central London, Abbey Wood and Shenfield. Passengers accessing London City Airport will be able to interchange with the Elizabeth Line at Stratford or Canary Wharf station via the DLR. The nearest

³ Control of development in airport public safety zones, Department of Transport , October 2021

Elizabeth Line station will be at Custom House, some 2.2 km west of the airport. At present there are no direct bus connections although TfL have previously consulted on the potential for re-routing service 474 to provide a direct connection between Custom House station and London City Airport upon opening of the Elizabeth Line.

- 6.2.8 London City Airport is also served by bus routes 473 (Stratford – North Woolwich) and 474 (Canning Town – Manor Park). Route 474 operates on a 24/7 basis. Following the opening of the Silvertown Tunnel in 2025, there is the potential for further bus services between destinations south of the River Thames and London City Airport. The nature of these enhancements will be established in dialogue with TfL and the LBN.
- 6.2.9 Vehicular access is provided from Hartmann Road, a private road which connects to a signalised junction with the A112 Connaught Road at its western end. At its eastern end Hartmann Road connects to a private London City Airport service road, with a gated access to the A117 Albert Road to the east. The airport's visitor and staff car parks are located directly off Hartmann Road.
- 6.2.10 The A112 Connaught Road connects directly to the South Circular at the A117 Albert Road to the east, and to the A13 Newham Way via the A112 Victoria Dock Road/Prince Regent Lane to the north.
- 6.2.11 The public roads within the vicinity of London City Airport are covered by a Controlled Parking Zone (CPZ) in operation 08:00 – 18:30 Monday – Sunday. This includes parking bays on the residential streets of Silvertown and double-yellow lines on Connaught Road/Albert Road and Hartmann Road.
- 6.2.12 The Ultra-Low Emission Zone (ULEZ) was expanded in October 2021 to cover all areas bordered by both the North and South Circular Roads, which includes the A117 Albert Road. As a result all approach routes to London City Airport are covered by the ULEZ. Vehicles not meeting the requisite Euro standard (i.e. older, more polluting vehicles) are currently required to pay £12.50 per day to enter the ULEZ.
- 6.2.13 Highways access to airport will be enhanced when the Silvertown Tunnel opens in 2025. This will broadly parallel the Blackwall Tunnel and will connect with North Woolwich Road at the western end of Dock Road.
- 6.2.14 Public highways surrounding London City Airport are provided with footways and street lighting. Segregated facilities for pedestrians and cyclists are provided parallel to the Connaught Bridge west of the airport and on the Sir Steve Redgrave Bridge east of the airport.

Potential Impacts

- 6.2.15 The EIA will address the following likely transport- and access-related effects during demolition and construction and once the Development is complete and operational:
- Effects upon traffic flow on local road network (severance, driver delay and accidents/road safety)
 - Effects upon pedestrian and cyclist access (delay, amenity and fear and intimidation)
 - Effects on pedestrian and cycling facilities and permeability through the Site with improved pedestrian / cycle access through the Site
 - Effect of additional vehicle trips
 - Effect upon public transport access (delay and amenity).

Approach and Methodology

- 6.2.16 A comprehensive TA will be undertaken by Steer and provided as an Appendix to the ES. The TA will include an Active Travel Zone Assessment (ATZ), in line with latest TfL guidance, junction modelling, and impact assessment on the local bus and rail networks, considering the predicted future changes to the provision of, and demand on, these transport modes. The TA will then include assessment of the likely effects as outlined above, suggesting appropriate mitigation, where required.
- 6.2.17 Discussions will take place with LBN and TfL to agree the scope of the TA and other supporting documents and any new surveys required. This dialogue will continue throughout the pre-planning process.
- 6.2.18 As a result of the Covid-19 outbreak and resultant changes to people's behaviours, including increased prevalence of working from home and occasional school closures, any surveys conducted at this time on surrounding highways and public transport networks are unlikely to be entirely representative of typical conditions. As such, 2019 will be adopted as the pre-Covid baseline year, supplemented by additional traffic surveys as necessary. Discussions and agreement will be sought with LBN and TfL on an acceptable and robust approach such that the conclusions of the TA are reasonable. This is expected to include use of:
- Pre-Covid data
 - TfL strategic models, particularly to establish future baseline and with development conditions.
- 6.2.19 The following data sources will be used to assess baseline and future mode shares:
- Staff travel surveys undertaken in 2021
 - CAA and ACI passenger surveys.
- 6.2.20 Future year assessment dates will be agreed with LBN and TfL, which will reflect the expected year of completion of the development (2031) as well as the Transitional Year (2027).
- 6.2.21 The Guidelines for the Environmental Assessment of Road Traffic (GEART) will inform the methodology for the ES chapter. Data will be taken from the TA, which is primarily concerned with the operation of the surrounding public transport and highway networks during the weekday AM and PM peak hours, to assess the scheme in terms of severance, driver delay, pedestrian delay, pedestrian amenity, pedestrian fear and intimidation, public transport access and accidents / road safety.
- 6.2.22 The ES will summarise the results of the TA in accordance with the requirement of the EIA Regulations 2017. As a result, the assessment will identify all likely significant transport and access effects and a description of appropriate mitigation, enhancement and/or monitoring measures.

6.3 Noise

- 6.3.1 The noise assessment of each type of source will be undertaken following the approach taken for the CADP1 application, as set out in the Updated Environmental Statement (UES) from September 2015 subject to revision and expansion to reflect changes in policy, details of the CADP1 permission, and the specific nature of this proposed amending application.

- 6.3.2 Regard will be given to the latest UK Government noise policy and taking account of the Noise Policy Statement for England and Planning Practice Guidance using the recognised descriptors for adverse effects such as the LOAEL, SOAEL and UAEL.
- 6.3.3 Consideration will also be given to Government guidance as contained within the Aviation Policy Framework, within the Government's consultation response to air space change, within the Government's Aviation 2050: The Future of UK Aviation consultation which outlines proposals for a new aviation strategy and addresses a wide range of associated issues, and the guidance in the Government's draft Airports National Policy Statement regarding new runway capacity and infrastructure at airports in the South East of England in respect of noise assessment and mitigation.
- 6.3.4 Four specific types of noise source will be considered: The noise from airborne aircraft, the noise from aircraft on the ground, the noise from surface access (SA) to and from the airport, and the noise from construction of the remaining elements from the CADP1 permission that have not been built and any additional construction necessitated by the proposed development.
- 6.3.5 Due to the potential for significant effects during the proposed construction, the UES for the CADP1 application also considered vibration. This was largely in response to the extensive piling proposed to construct the expanded apron and the parallel taxiway. The UES however concluded that no significant impacts were predicted from construction vibration. Given this, and that the expanded apron and parallel taxiway have now been constructed, it is not proposed to consider the vibration from the remaining elements from the CADP1 construction programme.
- 6.3.6 The output of this assessment work will be reported in a combined ES chapter covering air noise, ground noise, SA noise and construction noise.

Modelled Scenarios

- 6.3.7 The 2019 baseline noise emissions will be calculated based on the recorded recent use of the site including details of the aircraft activity, measured noise levels from the noise monitoring system at the airport, and recorded details of road traffic movements.
- 6.3.8 The year during which aircraft noise is likely to reach a peak in the Development Case (DC) case is 2024, which can be deemed the 'worst case year' for noise. However, noise levels will be very similar in the 'without development' (Do Minimum) scenario during this time. Thereafter, the accelerated transition to quieter new generation aircraft in the DM case is expected to lead to a reduction in air noise.
- 6.3.9 For each of the future years being considered (i.e. the worst year for air noise, the Transitional Year, the Principal Assessment Year) the DM scenario and the DC scenario will be modelled based on forecast activity and then compared. Consideration will also be given to sources of aircraft performance data, such as those available from the Civil Aviation Authority (CAA) on the performance of future aircraft types.
- 6.3.10 The DC scenario assessment will assess the noise impacts without and with mitigation, to demonstrate the effects of mitigation agreed with LCY and inform the presentation of mitigation in the ES chapter.
- 6.3.11 The assessment of construction noise will consider the specific elements to be constructed as opposed to specific years, although details of the likely timescale will be included.

Air Noise

- 6.3.1 The air noise assessment will primarily consider the standard UK noise indicator for daytime airborne noise, the $L_{Aeq,16h}$ index. This was the case for the UES and the subsequently published SoNA study specifically confirmed $L_{Aeq,16h}$ as the metric which correlates best with self-reported community annoyance.
- 6.3.2 Noise contours will be prepared using the Federal Aviation Administration Aviation Environmental Design Tool (AEDT). At LCY, these contours have historically been produced based on all the movements that occur, including those in the 06.30 to 07.00 period. No change to the approach is proposed as the proposed application retains the 8 hour night closure.
- 6.3.3 Contours will be produced from 51 to 69 dB $L_{Aeq,16h}$ in 3 dB steps with 51 dB taken to be the Lowest Observed Adverse Effect Level (LOAEL), 54 dB the threshold of community annoyance, 63 dB the Significant Observed Adverse Effect Level (SOAEL), and 69 dB the Unacceptable Adverse Effect Level (UAEL).
- 6.3.4 In the UES, 54 dB was taken as the LOAEL. The use of a lower value now is based primarily on the subsequent Government Consultation Response on UK Airspace Policy (2017) which stated that:
- “So that the potential adverse effects of an airspace change can be properly assessed, for the purpose of informing decisions on airspace design and use, we will set a LOAEL at 51 dB $L_{Aeq,16h}$ for daytime.”*
- 6.3.5 While that advice relates specifically to airspace change assessments, it is on the basis that adverse air noise effects are experienced down to these levels and is therefore considered appropriate to use for a LOAEL in this instance.
- 6.3.6 Recent research, in particular the SoNA study, point to an increased sensitivity to noise at low levels, and have resulted in the UK Government now considering 54 dB $L_{Aeq,16h}$ to be the onset of significant community annoyance, which was previously considered to be 57 dB $L_{Aeq,16h}$. This is reflected in the proposed change to 54 dB for the threshold of community annoyance, whereas it was 57 dB in the UES.
- 6.3.7 A level of 63 dB $L_{Aeq,16h}$ remains recommended by the Government as an eligibility criterion for sound insulation grant schemes. This was informed by the ANIS study. As a result, this value is commonly considered to represent the SOAEL, as was the case in the UES.
- 6.3.8 There is a proposal in the Aviation 2050 consultation paper to reduce this threshold to 60 dB $L_{Aeq,16h}$. However, this has not yet been brought forward and Aviation 2050 states that:
- “Until any framework is adopted as government policy, planning applications should continue to be considered against existing policy.”*
- 6.3.9 In any case, it is not clear that there is an evidence-based case for reducing the SOAEL. The SoNA study found that while there is evidence that people are becoming more sensitive to noise at lower noise levels, the same is not true at higher levels. An equal percentage of people (23%) were found to be highly annoyed by aircraft noise at a value of 63 dB $L_{Aeq,16h}$ in the SoNA study as was the case in the previous (1982) ANIS study.
- 6.3.10 A level of 69 dB $L_{Aeq,16h}$ remains recommended by the Government guidance in the Aviation Policy Framework as the level at which an airport should offer assistance with the costs of moving. As a result, this value will be taken to represent the UAEL, as it was in the UES.

- 6.3.11 When it comes to changes in noise level, between the LOAEL and the SOAEL, a value of 3 dB is to be adopted as the threshold for a significant change. For receptors above the SOAEL, a lower value of 2 dB is to be adopted.
- 6.3.12 For those above the SOAEL, this is more stringent than the CADP1 UES, which required a change of at least 3 dB for them to be considered significant, irrespective of the noise level. It considered change of less than 2 dB of no significance and those from 2 to 3 dB of minor significance. This more stringent approach accords with advice in Planning Practice Guidance and was adopted in the recent Bristol Airport Inquiry.
- 6.3.13 In the UES it was noted that there was currently no aircraft activity during the night period other than a very few movements early in the morning, with a permitted maximum of six between 0630 and 0700 hours and with no more than two between 0630 and 0645 hours. As no change to that regime was sought as part of the CADP1 application, the $L_{Aeq,16h}$ contours presented were considered sufficient.
- 6.3.14 For the S73 application, while night movements will remain restricted to early in the morning and limited in number, an increase is proposed. Noise contours will therefore be prepared based on the movements that occur in the 06.30 to 07.00 period. The contours will be produced for the standard UK noise indicator for night time airborne noise, the $L_{Aeq,8h}$ index.
- 6.3.15 Contours will be produced from 45 to 55 dB $L_{Aeq,8h}$ in 5 dB steps with 45 dB taken to be the LOAEL, and 55 dB the SOAEL.
- 6.3.16 The use of 45 dB for the LOAEL is based on the subsequent Government Consultation Response on UK Airspace Policy (2017) which stated that:
“based on feedback and further discussion with CAA we are making one minor change to the LOAEL night metric to be 45dB $L_{Aeq,8hr}$ rather than L_{night} to be consistent with the daytime metric”.
- 6.3.17 The value of 55 dB $L_{Aeq,8h}$ is used as an eligibility criterion for insulation schemes at a number of UK airports which operate insulation schemes with night noise criteria. The 2009 WHO Night Noise Guidelines also set out a value of 55 dB L_{night} as an interim target, and the effects associated with this are consistent with those of a SOAEL. The $L_{Aeq,8h}$ index only differs slightly from the L_{night} index in that it relates to an average summer day of aircraft activity, as opposed to an average annual day.
- 6.3.18 It is proposed to repeat the supplementary metrics from UES, namely:
- Single mode contours ($L_{Aeq,16h}$), westerly and easterly
 - Day, evening, night contours (L_{den})
 - Night noise contours (L_{night})
 - N_x and L_{Amax} noise contours
- 6.3.19 In the UES, N_x contours these were produced to show the number of aircraft events producing a level of 70 dB L_{Amax} (N70 contours). Since that time it has become more common to produce N65 contours from the daytime period and N60 for the night. The levels of 65 dB L_{Amax} for daytime flights and 60 dB L_{Amax} (N60) for night-time flights are specified in the Secretary of State’s Air Navigation Guidance as supplementary metrics. Typically, contours ranging from 10 events to 500 events are plotted. Consequently, even with the proposed application night-time activity may not be sufficient to generate contours. However, it will be possible to produce N65 contours for the daytime period.
- 6.3.20 The above metrics are routinely used to consider changes in the level of activity at an airport due to a development. A feature of this application is a change to the operational hours of the airport on Saturdays. This will reduce the current weekend closure period of 12.30 on Saturday until 12.30 on

Sunday, although flights scheduled earlier which have been unavoidably delayed can occur between 12.30 and 13.00 on Saturday.

- 6.3.21 To specifically consider the proposed change in the Saturday operating hours, it is intended to use the $L_{Aeq,16h}$ metric but only consider the weekend period. Noise contours will be produced based on all the movements at the weekend. They will be plotted at the same values as the standard contours and the magnitude of the changes due to the development will then be determined.
- 6.3.22 Although the values of 51 dB $L_{Aeq,16h}$ for the LOAEL and 63 dB $L_{Aeq,16h}$ for the SOAEL strictly relate to when noise is considered across the whole week, it is proposed to use the same criteria for the significance of changes in noise for the weekend assessment; namely, between 51 dB $L_{Aeq,16h}$ and 63 dB $L_{Aeq,16h}$, a value of 3 dB is to be adopted as the threshold for a significant change. For receptors above 63 dB $L_{Aeq,16h}$, a lower value of 2 dB is to be adopted.
- 6.3.23 As the change to the weekend hours is during the daytime it is not proposed to produce a night-time weekend assessment.

Ground Noise

- 6.3.24 There is no current UK policy or standard which sets out an assessment method which must be followed for ground noise at airports. Various methods have been adopted in the past, and these typically follow a similar approach to air noise assessments, i.e. using the L_{Aeq} metric for daytime and night-time noise, although the LOAEL and SOAEL thresholds are not necessarily the same.
- 6.3.25 The ground noise assessment will involve the preparation of ground noise contours using the Datakustik CadnaA environmental noise prediction software model. This software model uses the methodology set out in ISO 9613-2: 199654. Account will be taken of studies that have been undertaken to investigate the noise levels generated by aircraft operating on the ground.
- 6.3.26 Noise levels will be determined using the $L_{Aeq,16h}$ noise parameter for the summer daytime period, and the $L_{Aeq,8h}$ noise parameter for the summer night-time period. These will be based on the aircraft activity during the respective periods and will allow for:
- Engine running on a stand after start-up and prior to shutdown
 - Taxiing and manoeuvring on aprons, taxiways and runways
 - Aircraft waiting at hold positions on taxiways and runways
 - Aircraft operating auxiliary power units (APUs) to power aircraft on stands
- 6.3.27 Daytime contours will be produced from 50 to 70 dB $L_{Aeq,16h}$ in 5 dB steps with 50 dB taken to be the LOAEL, 60 dB the SOAEL, and 70 dB the UAEL as in the UES.
- 6.3.28 Night-time contours will be produced from 45 to 55 dB $L_{Aeq,8h}$ in 5 dB steps with 45 dB taken to be the LOAEL and 55 dB the SOAEL.
- 6.3.29 When it comes to changes in noise level, between the LOAEL and the SOAEL, a value of 3 dB is to be adopted as the threshold for a significant change. For receptors above the SOAEL, a lower value of 2 dB is to be adopted.
- 6.3.30 To specifically consider the change in the operational hours of the airport on a Saturday it is proposed to use the $L_{Aeq,16h}$ metric a second time but only consider the weekend period. Noise contours will be produced based on just the daytime movements at the weekend. They will be plotted at the same values as the standard contours and the magnitude of the changes due to the development determined.

- 6.3.31 Although the values of 50 dB $L_{Aeq,16h}$ for the LOAEL and 60 dB $L_{Aeq,16h}$ for the SOAEL strictly relate to when noise is considered across the whole week, as with air noise (described above) it is proposed to use the same criteria for the significance of changes in noise for the weekend assessment; namely, between 50 dB $L_{Aeq,16h}$ and 60 dB $L_{Aeq,16h}$, a value of 3 dB is to be adopted as the threshold for a significant change. For receptors above 60 dB $L_{Aeq,16h}$, a lower value of 2 dB is to be adopted.
- 6.3.32 As the change to the weekend hours is during the daytime it is not proposed to produce a night-time weekend assessment

Surface Access Noise

- 6.3.33 The assessment of road traffic noise in the UK is set out in the Design Manual for Roads and Bridges (DMRB) document LA 111. This requires the use of the $LA_{10,18h}$ metric, which is the A-weighted sound level exceeded for 10% of the time between 06:00 and midnight. The assessment therefore covers the operating hours of the airport.
- 6.3.34 Noise levels will be predicted using the CadnaA software package, following the methodology set out in the Department of Transport document Calculation of Road Traffic Noise (CRTN). This calculation method is recommended by LA 111.
- 6.3.35 Current and forecast traffic flow data (provided by Steer) will be used to predict current and future road traffic levels and to determine the resulting expected impacts.
- 6.3.36 LOAEL, SOAEL and change thresholds are defined in LA 111 with the day (06:00-24:00) values 55 dB $LA_{10,18hr}$ and 68 dB $LA_{10,18hr}$ at a facade location respectively. This SOAEL level is broadly equivalent to 63 dB $L_{Aeq,16h}$ at a location away from a façade, which was the value used in the UES. The UAEL was taken as 72 dB $L_{Aeq,16h}$, alias 77 dB $LA_{10,18h}$ at a facade and it is proposed to use the same here.
- 6.3.37 When it comes to determining the significance of changes in noise level from traffic, this will use the criteria given in LA 111.
- 6.3.38 As the standard assessment covers the week period, which already includes variations in the daily traffic flows and traffic distributions, it is not proposed to undertake a weekend specific assessment in relation to surface access.

Construction Noise

- 6.3.39 An assessment will be undertaken of noise from construction of the remaining elements of CADP1 permission that have not been built and all other construction necessitated by the proposed development. The method to be used to determine levels of construction noise is BS 5288-1:2009+A1:2014.
- 6.3.40 It is worth noting that the piling and deck works, which was the construction activity with the greatest potential to create noise nuisance, including at night, has now been completed. Future construction activity will have a much lower potential to generate significant levels of noise, as they will not entail any significant percussive activity and will largely take place in the daytime.
- 6.3.41 There are no universally recognised or mandatory UK standards or guidelines that set out limits for construction noise. Therefore, it is common practice to draw upon guidelines adopted by local authorities and noise limits used on other major developments involving significant long term construction activities. BS 5228:2009+A1:2014 also provides some guidance on noise limits.

- 6.3.42 Previously, construction noise limits were agreed with LBN and set out in the 2009 Section 106 Agreement. Based on the more stringent of these, which related to properties not treated under the Airport's Sound Insulation Scheme, indicative daytime values for the LOAEL of 65 dB $L_{Aeq,12h}$ and for the SOAEL of 75 dB $L_{Aeq,12h}$ respectively, are proposed. Similarly night-time values of 50 dB $L_{Aeq,15min}$ are proposed for the LOAEL, 55 dB $L_{Aeq,15min}$ for the SOAEL, and 65 dB $L_{Aeq,15min}$ for the UAEL.

6.4 Air Quality

- 6.4.1 The assessment will consider the potential effects of the Proposed Development with respect to air quality during the construction and operational phases.
- 6.4.2 LBN issued a borough-wide Air Quality Management Area (AQMA) in 2019 in respect of exceedances of the annual mean nitrogen dioxide and the daily mean PM10 objectives. By definition, the airport lies within this AQMA.
- 6.4.3 The existing air quality conditions in the study area will be determined from published reports, monitoring carried out by LCY and the neighbouring local authorities and background maps published by Defra and the London Atmospheric Emissions Inventory (LAEI). The baseline study will also determine existing, sensitive receptors where people may be affected by the Proposed Development. Consideration will also be given to any committed or proposed developments in the local area, where new receptors may be introduced. The study area for the air quality assessment will include a 1km radius around the airport boundary; it will also include all road links where incremental changes to traffic flows exceed established screening criteria (>100 LDVs or >25HDVs as 24hr AADT).
- 6.4.4 The 2007 UK Air Quality Strategy sets out objectives for ambient concentrations of pollutants at levels designed to protect human health. The assessment will consider the relevant objectives for the pollutants of concern. The assessment will also have regard to the 2005 WHO guideline for PM2.5 (10 $\mu\text{g}/\text{m}^3$ as an annual mean) in accordance with Policy SI 1 of the London Plan. The 2021 Environment Act commits the Government to set new targets for PM2.5; any new targets will be considered if they have been adopted at the time of the assessment.
- 6.4.5 Aircraft, and other airport-related combustion sources, also give rise to emissions of Ultra Fine Particles (UFPs) i.e., particles which are below 100 nanometres in diameter. However, there is currently no robust manner by which to quantify UFP emissions from aircraft or other combustion sources, and it is not possible to quantify the impacts of these sources using traditional modelling approaches. In addition, there are no guidelines or standards against which to compare UFP concentrations. The issue of UFPs was recently discussed at the Stansted Airport appeal (Ref. APP/C1570/W/20/3256619), where the Planning Inspector concluded that:
- “there was no reliable methodology for assessing the quality of UFPs that would result from the development”, but that “the Health Impact Assessment considered epidemiological research which includes the existing health effects of PM2.5 and thus UFPs as a subset; this concluded there would be no measurable adverse health outcomes per annum”.*
- 6.4.6 For this reason, predictions of UFP concentrations will not be included in the assessment but will be considered in the Health Impact Assessment (see below).

Construction Phase

- 6.4.7 The assessment of the remaining construction activities will be carried out based on a methodology described in guidance published by the Institute of Air Quality Management (IAQM), which is incorporated into the Greater London Authority's SPG on the Control of Dust and Emissions during Construction and Demolition. This will take account of the revised phasing, and any differences between the DM and DC scenarios. Appropriate mitigation measures, based on the level of risk identified by the dust risk assessment, will be identified.
- 6.4.8 Consideration will also be given to the potential impacts of emissions from construction traffic. Any changes to the volumes of traffic generated during the construction period will be compared to air quality screening criteria published by Environmental Protection UK and the IAQM. If the flows are predicted to exceed these criteria, then the impacts of emissions from construction traffic will be assessed using the ADMS-Roads model (as described below for operational impacts).

Operational Phase

- 6.4.9 The assessment will focus on concentrations of nitrogen dioxide, PM10 and PM2.5, as these are the principal pollutants of concern. Consideration will also be given to the potential impacts of airport odours.
- 6.4.10 The assessment will be carried out for a Baseline Year (2019), and two future years (either 2024 or 2027), and 2031, for both with Development Case (DC) and without development/ Do Minimum (DM) scenarios. The assessment will follow, as far as is possible, the "sophisticated approach" defined in the ICAO Airport Air Quality Guidance Manual, and assessment approaches in Defra's Technical Guidance TG16.
- 6.4.11 The compilation of the emissions inventories will draw upon the extensive work carried out as part of the CADP1 planning application, and the information published by LCY to support the recent Masterplan. The following information will be considered (or confirmation provided there is no change from previous air quality assessments undertaken on behalf of LCY), for each scenario:
- Annual Air Traffic Movements (ATMs), split by aircraft type, and with airframe/engine assignments;
 - Times-in-Mode (TIM) for Taxi (taxi-in, taxi-out and hold), Approach, Climb-out (initial and after throttle-back) and Take-off, together with angles of approach and climb;
 - Take-off thrust and reverse-thrust settings;
 - Auxiliary Power Unit (APU) use, by aircraft type;
 - Runway allocations, and meteorological assumptions for runway switch;
 - Operating patterns;
 - Annual fuel consumption (diesel and petrol) for airside vehicles and details of vehicle ages and types;
 - Fire testing (frequency, duration and type of fuel);
 - Ground running (frequency, duration and location);
 - Car parks, both staff and public (average daily movements, locations); and
 - Surface access movements (flows, speeds and fleet composition) on all affected links.

- 6.4.12 The ADMS-Airport model will be used to predict pollutant and odour concentrations at the sensitive receptors identified in the baseline review. The model will be verified for the Baseline Year (2019) by comparing predicted concentrations with measured values. Meteorological data will be derived from the station at the airport for 2019.
- 6.4.13 The outputs of the model will be used to determine compliance with the objectives and the WHO guideline, at each receptor location. The magnitude of impacts (between DC and DM) will be based on guidance issued by EPUK/IAQM. The likely significant effects will be based on professional judgement following EPUK/IAQM guidance.

Mitigation

- 6.4.14 Mitigation measures (including mitigation by design) will be identified, commensurate with the outcomes of the assessment. Consideration will also be given to the Air Quality Measurement Strategy and Air Quality Management Strategy, as required by Conditions 57 and 58 of the CADP1 planning permission. These Strategies will remain in place regardless of whether or not the S73 application is approved.

Air Quality Neutral and Air Quality Positive

- 6.4.15 Policy SI 1 of the London Plan requires that all developments should be “air quality neutral”, and that major developments that require EIA should be “air quality positive”.
- 6.4.16 The air quality neutral assessment is based on compliance with Buildings Emission Benchmarks and Transport Emissions Benchmarks as defined in the GLA SPG on Sustainable Design and Construction. Comparison with these Benchmarks will be carried out in line with guidance published by the GLA. The GLA has recently consulted on a revised approach to air quality neutral; this revised guidance will be taken into account if it has been adopted at the time of the assessment.
- 6.4.17 The GLA has also released guidance on air quality positive, which focuses on a matrix of measures under four key themes, “Better design and reducing exposure”, “Building Emissions”, “Transport emissions” and “Innovation and futureproofing”. An air quality positive statement will be prepared around these themes, taking into account the proposed variation to conditions.
- 6.4.18 To inform the air quality positive matrix, a review of best practice measures to control and minimise air quality impacts at other UK and international airports will be carried out, and compared with current and future management measures at LCY.

6.5 Climate Change

- 6.5.1 The Climate Change assessment will quantify the Greenhouse Gas (GHG) emissions resulting from the proposed development and determine their significance in the context of local, regional and national climate change policy. The resilience of the Development to future climate change will also be qualitatively assessed.
- 6.5.2 GHGs are gaseous compounds that have been identified as contributing to a warming effect in the earth's atmosphere. The primary GHG of concern with respect to the proposed development is carbon dioxide (CO₂) which is emitted from combustion sources such as aircraft engines, ground transport and heating and energy plant. Other GHGs also contribute to climate change and these will be accounted for based on their Global Warming Potential (GWP). The combined effect of all GHG emissions will be presented as carbon dioxide equivalent (CO₂e).

Baseline

6.5.3 The baseline for the development will be defined as the current GHG emissions arising from activities and infrastructure associated with London City Airport (LCY). This includes GHG from domestic and international aviation, surface access (i.e. movement of passengers to and from the airport by surface transport), operational vehicles, business travel, energy use (natural gas, heating oil and electricity consumption) used for example in cooling, heating and lighting and from fugitive refrigerant emissions. The existing baseline year will be 2019 as this is the most recent and complete Pre-Covid 19 data set.

Potential Effects

Likely Significant Effects

6.5.4 In line with IEMA guidance⁴ on assessing GHG emissions, all GHG emissions are included as all such emissions contribute to climate change and may be considered significant, irrespective of whether there is an increase or decrease in emissions.

6.5.5 There may be increases in GHG emissions from the operation of the completed development. Activities that could contribute to these operational GHG emissions and are therefore scoped into the EIA include:

- Air Transport: Landing and take-off cycle (LTO);
- Air Transport: Auxiliary Power Unit (APU) use on stand;
- Air Transport: Climb out, Cruise and Descent (CCD) Departures;
- Surface Access: Passenger and Employee travel to LCY;
- Operational vehicle use;
- Business travel;
- Refrigeration and loss/use of F-Gas; and
- Energy consumption at the airport (natural gas, heating oil, electricity) for example used in heating, cooling and lighting.

Non-Significant Effects

6.5.6 A small number of minor activities, detailed further below, will be scoped out of the assessment within the EIA, which is consistent with IEMA guidance. IEMA guidance recommends that individual activities with emissions that are less than 1% of total emissions, and where all such exclusions total a maximum of 5% of total emission can be scoped out of the assessment.

6.5.7 Accordingly, the following sources of GHG emissions will not be considered for further detailed assessment of the associated GHG emissions:

Table 6.2: Greenhouse Gas Emissions to be Scoped Out of the ES

GHG Emissions Source	Description
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⁴ IEMA, 2022. Assessing Greenhouse Gases Emissions and Evaluating their Significance, Second Edition 2022

Construction	Any additional GHG emissions resulting from construction activity, construction traffic and embodied in materials are likely to be minimal since the application is not seeking any additional infrastructure beyond that assumed in the future baseline.
Land use	GHG emissions resulting from land use change. The proposed development does not include a land use change (in the context of GHG emissions) and so no land use change emissions will arise as a result of the project.
Potable water supply and treatment	GHG emissions associated with offsite potable water treatment and supply to site. Emissions from water supply and treatment will make up <0.1% of the project's GHG footprint and so are considered to be negligible.
Solid waste	GHG emissions associated with offsite waste treatment, disposal and transport. Such emissions are very uncertain and challenging to calculate but will make up <0.1% of the project's GHG footprint, so are considered to be negligible.
Surface water	GHG emissions associated with offsite surface water treatment. Emissions from offsite surface water treatment will make up a very small component (<0.1%) of the project's GHG footprint and are considered to be negligible.
Decommissioning	GHG emissions associated with decommissioning of the development at the end of its life will also be scoped out. The airport is expected to continue to operate well past 2050, by which time the UK Government is targeting a net zero carbon economy. For practical purposes it is therefore reasonable to assume that decommissioning emissions will be net zero.
Non-CO ₂ emissions	The assessment will not take into account the effects of other non-CO ₂ climate effects such as from contrails and cirrus cloud formation. This is consistent with advice from the DfT and the CCC and adopted through previous air transport expansion projects and planning decisions taken at recent planning inquiries e.g. Bristol and Stansted Airport expansions where it was confirmed that those emissions should not be accounted for in the assessment.

Assessment Methodology

- 6.5.8 There is currently no standard methodology for quantifying GHG emissions within EIA. However, best practice will be drawn from the following sources: Assessing Greenhouse Gas Emissions and Evaluating their Significance (IEMA, 2022); The Greenhouse Gas Protocol (2001), Global Protocol for Cities (2014); Publicly Available Standard (PAS) 2080: 2016 – Carbon Management in Infrastructure (2016), IEMA EIA Guide To: Climate Change Resilience and Adaptation (2020), European Environment Agency (2019) EMEP/EEA air pollutant emission inventory guidebook (2019), DfT Jet Zero: modelling framework (2022).
- 6.5.9 The assessment will be guided by the definitions provided within the GHG Protocol, and which defines direct and indirect GHG emissions from developments through the following scopes:
- Scope 1: These include emissions from activities owned or controlled by LCY that release GHG emissions into the atmosphere. They are known as direct emissions and can be controlled by LCY.
 - Scope 2: These include emissions released into the atmosphere associated with LCY's consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of LCY's activities. Whilst LCY does not directly emit

these emissions it can control them through its energy management and purchasing decisions.

- Scope 3: Emissions that are associated with LCY but occur from sources which are not owned or controlled by the airport and are not classed as Scope 2 emissions. LCY can influence these emissions but not control them.

- 6.5.10 Total annual GHG emissions for the baseline year (2019) are taken as baseline conditions against which the future emissions associated with the development will be assessed.
- 6.5.11 The 2019 baseline GHG footprint will be calculated by multiplying data on flight numbers and destinations, passenger transport distances by mode, airport fuel, gas and electricity consumption, and refrigerant use by GHG emissions factors. These emission factors will be obtained from a number of sources including GHG emissions factors for company reporting published by the Department of Business Energy and Industrial Strategy (BEIS) and for air transport emissions, for example from the European Environment Agency EMEP/EEA Air Pollutant Emission Inventory Guidebook 2019.
- 6.5.12 The future baseline will take into account assumptions and published predictions around: airport growth without the proposed development (the Do Minimum scenarios), new and upgraded aircraft and aircraft engines, vehicle GHG emissions factors, changes in occupancy and operational profiles, UK grid decarbonisation projection scenarios, and the adoption rate of future low or zero carbon technologies.
- 6.5.13 The assessment of operational phase emissions will be based on activity data, including the transport and energy models and future air traffic forecasts, and will use BEIS GHG emission factors and best available emission factors for aircraft, such as for example the European Environment Agency EMEP/EEA Air Pollutant Emission Inventory Guidebook 2019 (the same approach to calculating the baseline GHG emissions).
- 6.5.14 The approach to classifying and defining likely significant effects will rely on:
- The approach to classifying and defining likely significant effects will rely on IEMA guidance (see Section 6 of the guidance) applying expert judgment on the significance of the proposed development's lifecycle ground-based GHG emissions, taking into account. A significance rating will be established which reflects the latest IEMA criteria for assessing the significance of GHG emissions.
 - The approach identified at paragraph 5.82 of the Airports National Policy Statement; namely, establishing whether the increase in carbon emissions resulting from the project is so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets, including carbon budgets.
- 6.5.15 This approach will take into account:
- any net change in emissions;
 - their likely contribution to local, regional and national GHG emissions;
 - their consistency with relevant policy. This will therefore consider both local and regional policies that apply to non-aviation emissions and national and international policies that apply to air transport emissions; and
 - an evaluation of the mitigation measures proposed to avoid, reduce and compensate GHG emissions taking into account the ability of the airport to manage those emissions as classified through the GHG protocol scopes.

- 6.5.16 The Climate Change chapter will also include a qualitative assessment of the vulnerability of the Proposed Development to future climate change consistent with IEMA guidance for assessing climate change resilience and adaptation.
- 6.5.17 This will consider potential climate risks and adaptation requirements resulting from future climate change including for example heatwaves, flooding, drought, and extreme weather events.
- 6.5.18 The assessment will reference UK Met Office Headley Centre climate projections for the UK (UKCP18).

Modelled Scenarios

- 6.5.19 The 2019 baseline CO₂e emissions will be calculated based on the current use of the site and the energy use and contribution to CO₂e emissions from ground and air transport activity.
- 6.5.20 The GHG footprint will be produced with the development (DC) and without (DM case) for the 2031 Principal Assessment Year. GHG emissions from air transport movements will also be modelled out to 2050 to allow comparison to DfT long term CO₂e forecasts included with their Jet Zero consultation. Modelling of air transport 2050 emissions will take into account sensitivities relevant to future operational efficiency improvements from new aircraft, use of Sustainable Aviation Fuel (SAF) and adoption of Zero Emission Aircraft consistent with DfT advice.

Cumulative Assessment

- 6.5.21 IEMA guidance makes clear that climate change is “*the largest interrelated cumulative environmental effect*” and therefore the assessment of GHG emissions which contribute to climate is intrinsically cumulative.
- 6.5.22 On this point IEMA state that “*The atmospheric concentration of GHGs and resulting effect on climate change is affected by all sources and sinks globally, anthropogenic and otherwise. As GHG emission impacts and resulting effects are global rather than affecting one localised area, the approach to cumulative effects assessment for GHGs differs from that for many EIA topics where only projects within a geographically bounded study area of, for example, 10km would be included*”.
- 6.5.23 In terms of this assessment the following are therefore relevant:
- The assessment will consider the effects of the proposed development in the context of national and local cumulative totals. Since the national totals assume that other developments will contribute GHGs, the assessment will consider their implications in determining significance; and
 - The geographical location of emissions has no relevance to the assessment. Therefore, the effects of the proposed development are independent of any local cumulative emissions.
- 6.5.24 Taking this into account, an assessment of the GHG emissions associated with cumulative developments will not be undertaken and the cumulative GHG effects are considered to be the same as those for the completed Development.
- 6.5.25 This is consistent with IEMA guidance which states that “*Effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other*”.

6.6 Public Health and Wellbeing

- 6.6.1 The wider determinants of health and health inequalities are key considerations when undertaking an assessment of human health as part of EIA.

Baseline

- 6.6.2 The east-west alignment of the airport means that populations in Newham, Greenwich and Tower Hamlets are of particular interest to the health assessment.
- 6.6.3 The following baseline data is from the Office for Health Improvement and Disparities (OHID) Fingertips Local Authority Health Profiles. The most recent profiles are 2019-2020. This provides a high-level summary of some of the key health issues in the three local authorities. Small area data for a larger range of indicators will be collected and presented as part of the ES using the OHID local data tool and deprivation mapping.
- 6.6.4 The health of people in Newham, Greenwich and Tower Hamlets is varied compared with the England average. The presence of vulnerable groups and pockets of deprivation is noted. All of these authorities have lower super output areas (LSOAs) within the 20% most deprived districts/unitary authorities in England and about 20% of children live in low-income families. Between 25% and 28% of children in year 6 are classified as obese. There are issues of adult physical activity, excess weight and cardiovascular risk. Compared to the England average, the rates of under 75 mortality from cardiovascular diseases are worse in Newham and Tower Hamlets, but similar to the England average in Greenwich. In Newham and Greenwich, the rates of killed and seriously injured on roads are better than the England average, whilst in Tower Hamlets the rates are worse than the England average.

Potential Effects

- 6.6.5 The following sections summarises potential impacts and scoping conclusions for the Project, based on the tools used by the Institute of Public Health (IPH, 2021). The headings used reflect strategic determinants of health set out in HIA guidance that span environmental, social, behavioural, economic and institutional factors. A key principle of scoping is to be proportionate, so that the assessment focuses only on those public health issues that have the potential to be both 'likely' and 'significant'.

Healthy lifestyles

- 6.6.6 Physical activity and mental health changes linked to access and amenity of recreation and leisure spaces are scoped-in for the operational phase. Regard will be given to vulnerability, including due to age, poor health, socio-economic status and social disadvantage. The focus will be on populations accessing public areas of green space that is identified as experiencing significant adverse day-time effects within the noise assessment.
- 6.6.7 The Proposed Development has workforce implications. The potential for health promotion during construction and operation will be considered as a good practice enhancement measure but is otherwise scoped-out.
- 6.6.8 Issues of community health behaviours being affected by the presence of the construction workforce are scoped-out. This reflects the fact that the construction of the remaining CADP1 structures and those additional construction activities that will occur to facilitate the proposed S73 changes (e.g.,

reconfiguration of existing stands) are relatively modest and would be predominantly within the airport boundary. It also reflects the expectation of a relatively small construction workforce during the extended CADP1 build-out between 2024 and 2031.

- 6.6.9 The application is not expected to have the potential to affect population health through changes in the availability or price of healthy foods. Diet as an issue is therefore scoped-out.

Safe and cohesive communities

- 6.6.10 During operation, the issue of 'community identity' is scoped-in as there are beneficial effects linked to the airport due to it having a positive influence on communities, being both a source of employment and providing access to travel. It is also scoped-in for any potentially adverse effects in relation to reduced amenity affecting social networking and social gatherings. Both may affect community cohesion and social isolation.
- 6.6.11 Transport effects are scoped-in. This includes issues of road or route safety as passenger numbers increase. LCY already has a high public transport modal share but, generally, where surface access increases this may affect community severance, journey times, including routine access to healthcare and emergency response times. As such, these matters will be considered.
- 6.6.12 Active travel typically does not have large modal share for passengers travelling to airports. London City Airport is perhaps an exception due to both its high business passenger proportion, typically with less luggage, and its central London location allowing for access without use of private vehicles, i.e. a combination of active travel and public transport. Opportunities to improve active travel and multi-modal share will be considered in association with the transport assessment.
- 6.6.13 The workforce will have housing requirements but, as evidenced by previous staff surveys, a high proportion are resident in the local region. Aircraft crews have routine hotel accommodation provision, which is plentiful in the London context. There will not be any loss of residential housing or permanent loss of outdoor spaces associated with dwellings. Similarly, as there are no structural changes to the approved CADP1 scheme as a result of the S73 application, there will be no impacts in terms of its built form, limiting the potential for any widespread adverse effect on views or lighting. As such, 'housing' and the 'built environment' issues are scoped-out. The issue of noise in the context of indoor and outdoor spaces is discussed separately.
- 6.6.14 Issues of actual and perceived crimes, including safeguarding, people trafficking and modern slavery, are scoped-out. This reflects that the airport would appropriately scale its security measures in line with passenger growth, regulatory requirements and normal good practice.
- 6.6.15 Whilst there would be a greater transitory population associated with arrivals and departures from the airport, the effects are highly localised to the airport itself. The potential for such an influx, in itself, to affect community identity to an extent that could influence community health and wellbeing is scoped-out. Specific issues in relation to health and social care services are discussed separately.

Socio-economic conditions

- 6.6.16 Good quality stable employment supports public health through avoiding the adverse mental health effects of unemployment or poor-quality employment. Good quality employment also supports health through resources to spend on healthy lifestyles choices. Benefits extend to those employed and their dependants. The benefits during construction and operation will be considered, including direct and indirect employment and investment.

- 6.6.17 Occupational health and safety is scoped-out as this follows current regulation and good practice. The airport operates appropriate policies, including in relation to general employment and avoiding issues of discrimination. Appropriate policies and standards are expected for construction contractors.
- 6.6.18 Linked to quality of employment are apprenticeship and training opportunities, which LCY is renowned for. Educational opportunities in relation to adult training and career development during construction and operation are therefore scoped-in. Regard will be had to opportunities to further improve access to training schemes and good quality employment for people from disadvantaged backgrounds, where this is feasible, including from local communities. Issues of educational attainment in schools is discussed in relation to noise.

Environmental conditions

- 6.6.19 A key consideration arising from the proposed changes is the effect of operational air noise, and potentially ground noise, on surrounding communities. The potential for both day-time and night-time effects on population health will be considered. This reflects that whilst there is no change in the overall number of flights per year, the passenger growth is delivered through larger Code C aircraft and some day-time scheduling changes. However, these larger aircraft are expected to be of modern design (collectively known as 'new generation' aircraft) which have lower noise profiles compared to older models. Passenger surface access requirements will also increase, with potential noise implications. How these changes affect noise levels will be assessed in the noise assessment, described earlier in this Scoping Report. The health assessment will consider the public health, population level, implication of such changes.
- 6.6.20 A suitable range of noise metrics, as assessed in the noise assessment, will also be considered in the health assessment. This includes but is not limited to average noise metrics. To avoid assessing issues twice, where noise effects relate to issues of day-time amenity, these will be discussed in terms of the effect on healthy lifestyles, including mental health and physical activity related outcomes.
- 6.6.21 The health assessment will highlight any instances where the change in noise results in widespread new exposures, or reductions in exposures, across a population which are above thresholds defined in the noise assessment as being significant. These are the circumstances in which public health effects are most likely to arise. In such cases, populations will be defined in relation to the relevant geographic extent for the source of exposure, with a focus on small area populations. Within these populations, vulnerabilities to noise will be considered including where day-time rest is important due to poor health or age. Any widespread changes in noise below the thresholds of noise assessment significance will also be considered in relation to the public health implication.
- 6.6.22 The potential for individual, as opposed to population level, health effects will be noted where relevant and, if appropriate, targeted mitigation proposed. The conclusions of the health chapter will however be in relation to population level effects, as is set out in relevant guidance for assessing health in EIA.
- 6.6.23 Air quality is scoped-in. The health assessment will consider the public health implications of the findings from the air quality assessment, as described earlier in this Scoping Report. As with the other topics of the health chapter, the assessment will be in relation to population level outcomes, including potential inequities for vulnerable groups or localised effects. The health assessment will consider the significance of non-threshold effects of nitrogen dioxide and fine particulate matter on population health. WHO air quality guideline values will be noted for reference and as an aspirational target. However, in accordance with the guidance for assessing health in EIA, the assessment of

health significance will judge public health acceptability with reference to the statutory air quality limit values set for the purpose of health protection by the UK Government. Opportunities to reduce air pollutants arising from the project to as low as reasonably practicable will be considered, including through promoting low emission surface access by workers and passengers.

- 6.6.24 The issue of ultra-fine particulate matter (UFP) will be discussed in the health assessment as part of the assessment of non-threshold effects of fine particulate matter, of which UFP is a sub-set. Key publications from the emerging scientific literature on UFP will be reviewed and summarised to support an appropriate public health response to UFP, including any requirement for monitoring.
- 6.6.25 The public health effects of climate change will be scoped-in. A brief discussion will consider the climate change assessment and its implications for health inequalities. Whilst the project level contribution to any change in national and international population health is not expected to be significant, this is a topic warranting clear and transparent discussion. Reference will be made to national strategies and policy context.
- 6.6.26 Issues related to water and soil quality are scoped-out. This reflects that this application is primarily related to operational changes rather than construction activity that could give rise to such effects. Issues such as runway de-icer discharges into watercourses will continue to be managed under permits issued by the Environment Agency, Thames Water and RoDMA to maintain health and ecological protection standards. Similarly, the implications for on-site water demand, waste and sanitation as a result of greater passenger numbers would be met through existing and future infrastructure in accordance with the CADP1 planning permission.
- 6.6.27 Electro-magnetic fields (EMF) are scoped-out. An EMF is produced whenever a piece of electrical or electronic equipment is used. The potential for public health effects arises where major electrical infrastructure is installed where there may be prolonged community exposure. This is not a feature of this application. In any event, the airport would adopt the International Commission on Non-ionizing Radiation Protection (ICNIRP) guidelines (ICNIRP, 1998) and Government voluntary Code of Practice on EMF public exposure (Department of Energy and Climate Change, 2012). As field strength reduces rapidly with distance, often requiring only a few meters separation between the source and receptor, the likelihood of any adverse effect is greatly reduced by the inherent airside restrictions at airports and perimeter fences. On the basis that the abovementioned ICNIRP guidelines and the Government's voluntary Code of Practice are adopted, there is not considered to be the potential for a risk to population health.

Health and social care services

- 6.6.28 The increase in passengers arriving at the airport (inbound or outbound) has potential implications for NHS routine service planning. This population would be comprised of both those entitled to NHS care (e.g. UK residents) and those who would need to pay for care (e.g. overseas travellers from countries without reciprocal healthcare reimbursement). In either case, any NHS care need arising at, or whilst traveling to, the airport would include people who are not registered with local services. Where emergency healthcare is required, reimbursement is not always sought. A degree of 'out of area' healthcare demand is not unique to aviation and arises for all major venues or transport infrastructures that attract people from outside of their usual area of residence. NHS service planning routinely takes such demand into account, in addition to the demand from registered patients. In many cases there are internal NHS reimbursement mechanisms.
- 6.6.29 In view of the above, the issue of providing appropriate information to the NHS to support routine service planning is scoped-in. The increase in airport capacity up to 2031 provides ample service planning opportunity and the speed of passenger growth is not expected to require a step-change

in local NHS services. The majority of any change would be a redistribution of demand within existing NHS entitlements. The health assessment will consider the current level of demand, e.g. ambulance callouts from the airport, and the expected change due to the proposed uplift in passengers.

- 6.6.30 The issue of communicable illness, including in relation to Covid-19 is scoped-out. The airport will continue to operate appropriate measures to safeguard the workforce, passengers and members of the public in line with Government guidance of the day. The issue of port health incidence procedures and surveillance is scoped-out as this is a public health function of the local authority, with national public health input, that is supported by LCY. Port health would be scaled in line with growth to meet statutory duties. Issues of health tourism (travelling to the UK for healthcare) are also scoped-out as the great majority of overseas travellers who may use NHS services would have appropriate health insurance to reimburse the costs of their care. While it is recognised that the NHS faces capacity challenges, the scale of any change in communicable illness or health tourism due to the proposed increase in passengers is not considered to have the potential to significantly affect population health.

Assessment methodology

- 6.6.31 A population health approach will be taken, informed by discussion of receptors, in conjunction with other technical chapters of the ES. For each determinant of health, the human health chapter will identify relevant inequalities through consideration of the differential effect to the 'general population' of the relevant Study Area and effects to the 'vulnerable population group' of that Study Area; the vulnerable population group being comprised of relevant sensitivities for that determinant of health. This is in line with guidance and good practice. The following population groups are present and will be considered:

- the 'general population' including residents, passengers, workers, service providers, and service users; and
- the 'vulnerable group population' including potential vulnerability due to: young age, older age, low income, poor health status, social disadvantage, restricted access or geographic proximity to airport activities

- 6.6.32 No bespoke baseline human health surveys are proposed to be undertaken as part of the assessment. Instead, the health analysis will be informed by project-wide consultation. The approach to assessment will ensure that Health Impact Assessment (HIA) is embedded within the EIA in line with good practice.

- 6.6.33 The following data sources will be used:

- OHID Fingertips, Local Health data sets to show most sensitive Wards. Relevant indicators will be selected from 'our community', 'behavioural risk factors and child health', 'disease and poor health' and 'life expectancy and causes of death'.
- Office of National Statistics (ONS) and official labour market statistics (NOMIS) statistics. If available, 2021 census data will be included.
- Indices of deprivation mapping 2019, including 'Index of multiple deprivation' and individual sub-domains.
- Google Earth Pro 2021 aerial and street level photography review.
- Local Joint Strategic Needs Assessment (JSNA) and Health and Wellbeing Strategy (HWS) data. Local health priorities will be identified and additional information on relevant vulnerable groups may be extracted as appropriate.

- 6.6.34 The following health and wellbeing strategies will be reviewed, which set public health priorities for this population.
- 'Well Newham 50 Steps to a Healthier Borough' - Health and Wellbeing Strategy 2020-2023
 - The Royal Borough of Greenwich Health and Wellbeing Strategy 2019-2024
 - Tower Hamlets Health and Wellbeing Strategy 2017-2020 [2021-2025 update expected].
- 6.6.35 The health assessment methodology will use best practice, as published by:
- The IPH Health Impact Assessment Guidance, Standalone HIA and health in environmental assessment (2021) (Pyper et al., 2021). This guidance for Northern Ireland (UK) and the Republic of Ireland (EU) can be applied more broadly and is the only UK HIA guidance that provides detail on the analysis and reporting of human health in EIA. It shows good practice.
 - International Association for Impact Assessment (IAIA) and European Public Health Association (EUPHA) 'Human Health: Ensuring a high level of protection' which is a reference paper on addressing Human Health in Environmental Impact Assessment (2020) (Cave et al., 2021). This reference paper informed the IPH guidance.
 - IEMA, Health in Environmental Impact Assessment: A Primer for a Proportionate Approach (outlined in Cave et al., 2017). This sets broad principles that have been developed in more detail by the IPH guidance.
 - Public Health England (PHE) guidance, Health Impact Assessment in spatial planning (PHE, 2020). This sets a broad context, including recommending that HIA be integrated into EIA.
 - It is noted that IEMA, in collaboration with OHID, are in the process of producing further guidance on health in EIA. Regard will be had to that work, which may include updates to the final methodology used. Engagement with local authority public health teams will explain any changes and seek to reach consensus on the approach and conclusions.
- 6.6.36 Due to the current lack of England-specific guidance on determining significance for health in EIA, Table 6.44, Table 6.5 and Table 6.6 (below) together summarise the assessment methodology that will be adopted. This good practice approach is based on UK guidance (IPH, 2021) (IAIA/EUPHA 2020) and can be applied consistently to all determinants of health. The tables support narrative conclusions. This approach shows how the general EIA methods of using sensitivity and magnitude to inform a judgement of significance, are applied for human health. The approach uses professional judgement, drawing on consistent and transparent criteria for sensitivity and magnitude. It also references relevant contextual evidence to explain what 'significance' means for human health in terms of the public health importance, desirability or acceptability of a change in population health outcomes.
- 6.6.37 The methods are set out here so that the approach can be agreed with public health stakeholders. Definitions of the terms used are set out in (IPH, 2021) and (IAIA/EUPHA 2020). For brevity, such detail is not set out here. (IPH, 2021) and (IAIA/EUPHA 2020) represent the most up-to-date consensus position between public health and impact assessment professionals.
- 6.6.38 The EIA human health assessment will be a qualitative analysis, following the IPH 2021 guidance approach, which draws on qualitative and quantitative inputs from other EIA topic chapters. This is considered the most appropriate methodology for assessing wider determinants of health proportionately, consistently and transparently.

6.6.39 The EIA health chapter conclusions will be presented in both EIA categories of significance, such as major, moderate, minor or negligible; and a narrative explaining this 'score' with reference to evidence, local context and any inequalities.

Table 6.4: Health sensitivity methodology criteria

Score	Criteria (a judgment is made based on most relevant criteria)
High	A high proportion of the population characterised as: dependants; in high levels of deprivation; with very poor health status; and/or are prevented from undertaking daily activities. Inequalities between the most and least healthy are wide. Public responses to the proposal predominantly indicate concern. The population has very low capacity to adapt. There is reliance on resources shared between the population and the project.
Medium	A high proportion of the population characterised as: providing a lot of care; in moderate levels of deprivation; with poor health status; and/or are limited a lot in undertaking daily activities. Inequalities between the most and least healthy are widening. Public responses to the proposal predominantly indicate uncertainty. The population has limited capacity to adapt. There is convenience use of resources shared between the population and the project.
Low	A high proportion of the population characterised as: providing some care; in low levels of deprivation; with fair health status; and/or are limited a little in undertaking daily activities. Inequalities between the most and least healthy are narrowing. Public responses to the proposal predominantly indicate ambivalence. The population has high capacity to adapt. There are many alternatives to resources shared between the population and the project.
Very Low	A high proportion of the population characterised as: independent (not a carer or dependant); in very low levels of deprivation; with good health status; and/or are not limited in undertaking daily activities. Inequalities between the most and least healthy are narrow. Public responses to the proposal predominantly indicate support. The population has very high capacity to adapt. There are no resources shared between the population and the project.

Table 6.4: Health magnitude methodology criteria

Score	Criteria (a judgment is made based on the most relevant criteria)
High	High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality; majority of population affected; permanent change; substantial service quality implications.
Medium	Low exposure or medium scale; medium-term duration; frequent events; severity predominantly related to moderate changes in morbidity; large minority of population affected; gradual reversal; small service quality implications.
Low	Very low exposure or small scale; short-term duration; occasional events; severity predominantly related to minor change in morbidity; small minority of population affected; rapid reversal; slight service quality implications.

Very Low Negligible exposure or scale; very short-term duration; one-off frequency; severity predominantly relates to a minor change in quality-of-life; very few people affected; immediate reversal once activity complete; no service quality implication.

Table 6.5: Health significance methodology criteria

Score Criteria (a judgment is made based on the most relevant criteria, the matrix is a guide)

		Sensitivity			
		High	Medium	Low	Very Low
Magnitude	High	Major	Major	Moderate	Negligible
	Medium	Major	Moderate	Minor	Negligible
	Low	Moderate	Minor	Minor	Negligible
	Very Low	Negligible	Negligible	Negligible	Negligible

Major The magnitude of change due to the proposal is high or medium. The sensitivity of the affected general population or vulnerable group population is high or medium. Both sensitivity and magnitude may be high.

AND in relation to importance: There is a causal relationship between changes that would result from the proposal and changes to health outcomes. There would be a substantial change in the health baseline. Health priorities have been set for the relevant study area that are of specific relevance to the determinant of health or population group affected by the proposal.

AND/OR in relation to acceptability/desirability, any of: Changes, due to the proposal, have a substantial effect on the ability to deliver current health policy. Change, due to the proposal, could result in a regulatory threshold or standard being crossed. Consultation for the proposal indicates consensus among stakeholders, particularly public health stakeholders.

Moderate The magnitude of change due to the proposal is high or medium. The sensitivity of the affected general population or vulnerable group population is high or medium. Either sensitivity or magnitude may be high, both can be medium.

AND in relation to importance: There is a clear relationship between changes that would result from the proposal and changes to health outcomes. There would be a small change in the health baseline. Health priorities have been set for the relevant study area that are of general relevance to the determinant of health or population group affected by the proposal.

AND/OR in relation to acceptability/desirability, any of: Changes, due to the proposal, have an influential effect on the ability to deliver current health policy. Change, due to the proposal, could result in a regulatory threshold or standard being approached. Consultation for the proposal indicates mixed views among stakeholders.

Minor The magnitude of change due to the proposal is medium or small. The sensitivity of the affected general population or vulnerable group population is medium or small. Either sensitivity or magnitude may be medium, both can be small.

AND in relation to importance: There is a suggestive relationship between changes that would result from the proposal and changes to health outcomes. There would be a slight change in the health baseline. Health priorities have been set for the relevant study area that are of low relevance to the determinant of health or population group affected by the proposal.

AND/OR in relation to acceptability/desirability, any of: Changes, due to the proposal, have a marginal effect on the ability to deliver current health policy. Change, due to the proposal, would well within a regulatory threshold or standard. Consultation for the proposal indicates not themes emerging among stakeholders.

Negligible The magnitude of change due to the proposal is small or very small. The sensitivity of the affected general population or vulnerable group population is small or very small. Either sensitivity or magnitude may be small, both can be very small.

AND in relation to importance: There is an unsupported relationship between changes that would result from the proposal and changes to health outcomes. There would be a very limited change in the health baseline. Health priorities for the relevant study area are not relevant to the determinant of health or population group affected by the proposal.

AND/OR in relation to acceptability/desirability: Changes, due to the proposal, are not related to the ability to deliver current health policy. Change, due to the proposal, would not relate to regulatory threshold or standard. Consultation for the proposal indicates no responses among stakeholders.

7 NON-SIGNIFICANT TOPICS

7.1 Introduction

- 7.1.1 This section identifies a range of topics that are considered unlikely to be materially affected or give rise to significant environmental effects as a consequence of the S73 application. An explanation has been provided to justify the reasons why each specific topic does not require a standalone ES chapter. However, for the sake of completeness, the ES will include a composite chapter on these non-significant issues, providing further information on these topics where necessary.

7.2 Water Resources and Flood Risk (Scoped Down)

Flood Risk

- 7.2.1 The airport is located between the Royal Albert Dock (30 hectares) and King George V (KGV) Dock (24 hectares), comprising two of the three Royal Docks. These are manmade waterbodies which were constructed between the 1880's to 1920, with an average depth of approximately 10 – 11 m. The water level within the Royal Docks is maintained within this range by pumping from the River Thames; this being the responsibility of Royal Docks Management Authority (RoDMA). The George V Dock joins the Gallions Reach section of River Thames by the KGV gate, located at the entrance lock to the Royal Docks, approximately 400 m east of the airport. The gate provides flood protection to the impounded area of the docks.
- 7.2.2 Whilst the airport is located within an area at risk of tidal flooding, primarily within Flood Zone 3 (which corresponds with an annual probability of over 1 in 200 (0.5%)), the risk is categorised as 'residual' based on the presence of the River Thames flood defences, including the Thames Barrier and dock gates to the east of the airport. The EA flood map for surface water indicates that the majority of the site is at 'very low' risk of surface water flooding but there are areas of 'low' to 'high' risk alongside the existing terminal buildings.
- 7.2.3 A flood risk assessment was undertaken by RPS in 2013 in support of the CADP1 planning application in order to assess the potential impacts of all sources of flooding to the airport. This flood risk assessment (FRA) outlined the potential for the airport to be impacted by flooding, the impacts of the proposed CADP1 on flooding in the vicinity of the airport (up to 2025), and the proposed measures which could be incorporated into the development to mitigate the identified risk.
- 7.2.4 The 2013 FRA was produced in accordance with the guidance detailed in the National Planning Policy Framework (NPPF) at the time and took account of the CIRIA SuDS manual (C697), and the 2010 LBN Strategic Flood Risk Assessment (SFRA). The FRA concluded that there was a negligible risk of tidal and fluvial flood in the area – mainly on account of the fact that it straddles the Thames Barrier, so has a high level of protection from storm surges by the Barrier, by the dock gate and by raised walls downstream.
- 7.2.5 A review of the updated 2017 LBN SFRA⁵ which includes the most recently published Environment Agency tidal breach modelling (May 2017) for upstream of the Thames Barrier, suggests that the Royal Docks retain a negligible risk of flooding in the 'non-breach' scenario. However, it is noted that

⁵ London Borough of Newham Level 1 & 2 Strategic Flood Risk Assessment - Final Report, 25th September 2017

the GLA suggest that further analysis is required in due course, in particular through updated SFRA and site-specific FRAs⁶.

- 7.2.6 The 2015 UES concluded that there would be a negligible effect on flood risk on site and surrounding area. The proposed surface water drainage strategy also identified a moderate beneficial effect on the sewer network through reduced discharge flow rate. Condition 69: Sustainable Drainage Systems attached to the CADP1 planning permission, which requires a Surface Water Drainage Scheme to be submitted and approved by LBN prior to construction, has since been discharged.
- 7.2.7 An addendum to the 2013 FRA was prepared by RPS in 2017 to support the submission of a Section 96a (non-material amendment) application for variations to the original consent. This assessment was undertaken using the updated Thames Tidal Upriver Breach Inundation Modelling (May 2017). A Flood Management Plan was also produced by RPS in 2017.
- 7.2.8 The Thames Tidal Downriver Breach Inundation Modelling study was subsequently updated (June 2018). It shows that the flood extent would potentially impact the site during a breach of the flood defences.
- 7.2.9 The proposed changes to CADP1 conditions will not result in any changes to the area of hardstanding or airport infrastructure and accordingly would not result in an increase in flood risk or surface water run-off. Accordingly, the S73 changes will not result in any new or materially different likely significant environmental effects from those identified in the UES. Nevertheless, an updated flood risk assessment using the most up-to-date data, including the Thames Tidal Downriver Breach Inundation Modelling (June 2018), will be undertaken in support of the S73 application. This will account for changes in climate change factors and any update to the Environment Agency, GLA and Newham's policies including revisions to the 2017 SFRA. This FRA will then inform any necessary revisions to the existing surface water drainage strategy, including establishing new attenuation factors and identifying options for additional SuDS if required (e.g. the capture and discharge of clean water to the Dock).

Water Quality

- 7.2.10 The bio-chemical quality of the water in the Docks is influenced by water pumped into it from the tidal Thames. A number of activities at the airport also have the potential to affect water quality. However, through utilisation of the airport's EMS (which is certified to ISO14001:2014), the impact of such activities is considerably reduced and effectively monitored.
- 7.2.11 Suitable infrastructure has been present for many years at the airport to minimise the risk of accidental discharges to the Docks as well as the volume of surface run-off overall. RoDMA undertakes water quality sampling and continuously monitors pollution in the Docks, as well as removing litter and detritus on a regular basis. The airport itself also monitors and reports on water quality as part of its ongoing sustainability and environmental commitments and reports the results in its Annual Performance Report (APR).
- 7.2.12 The methods of piling associated with the piling and deck works in KGV Dock (now completed) were selected to avoid pollution of the underlying groundwater and to minimise the disturbance of dock sediment and bed material as far as reasonably possible, thus reducing the risk of adverse effects on water quality. Regular monitoring of the water in the docks during these deck works showed no

⁶ London Regional Flood Risk Appraisal (September 2018).

significant deterioration in bio-chemical conditions compared to baseline readings taken before the works commenced.

- 7.2.13 The remaining CADP1 construction works will all occur on the landside parts of the airport and therefore the risk of pollution to the docks is much reduced, especially accounting for the pollution control measures set out in the CEMP.
- 7.2.14 It is not envisaged that the changes to the CADP1 scheme sought through this S73 application will result in any new or materially different likely environmental effects with respect to water quality in the Dock and other surface water features.

Water Consumption

- 7.2.15 The airport has a relatively low water consumption per passenger by comparison to other UK airports (in 2015 this was approximately 6.2 litres passenger) and in recent years it has implemented an increasingly comprehensive water efficiency programme. For example, it has installed low water fittings throughout the terminal building and associated offices. These include:
- Waterless urinals;
 - Low water use soffits in taps;
 - Sensor taps; and
 - Low flow toilets.
- 7.2.16 LCY will continue to monitor water use at the airport and will implement further metering in areas of high usage, especially within the terminal. Through the phased development of future works associated with CADP1, additional water efficiency measures will be introduced to reduce water demand at source, including through the design and specification of water fixtures and fittings within the new CADP1 building infrastructure. All new main buildings will achieve a BREEAM 'Very Good' or 'Excellent' rating. The Sustainability and Biodiversity Strategy, submitted in accordance with Condition 56 of the CADP1 permission and approved by LBN, sets targets for reducing water use per passenger.
- 7.2.17 However, it is unlikely that the airport will be able to continue to significantly reduce water consumption through efficient water appliances alone, and so other measures to reduce water consumption are being explored. The airport will continue to explore options for substituting potable water with non-potable alternatives where appropriate. For instance, rainwater harvesting may present an opportunity for this in the future.
- 7.2.18 High level consultation will be undertaken with Thames Water in order to explore the capacity of their network to supply the airport based on the projected passenger numbers.

7.3 Townscape and Visual Effects (Scoped Out)

- 7.3.1 The site of the airport has undergone dramatic change in visual character and appearance since the last commercial maritime operations ceased in 1983, morphing from a port and industrial based landscape (with associated warehouse, jetties, cranes and associated infrastructure) to a dedicated modern airport and transport hub.
- 7.3.2 The airport is now surrounded by infrastructure closely aligned to its operations, including the Docklands Light Railway (DLR), hotels, offices, car parks and emerging commercial developments such as the ABP Royal Albert Dock scheme to the north. An established residential community of predominantly terrace houses and flats are situated directly to the south of the airport, with the Tate

and Lyle factory dominating the skyline to the southwest. Further new residential developments are being built to the west, north and east, including major developments such as Silvertown Quays and Gallions Quarter. The A112, Hartmann Road, Connaught Bridge and the A1020 route around the airport with the DLR running along the south.

- 7.3.3 The area generally consists of urban development contrasting with the open areas of water of the Docks and the River Thames. Some isolated landscaped areas exist; however, in most locations there is relatively little vegetation.
- 7.3.4 The extensive urban area provides a night-time character which is strongly influenced by artificial light from buildings and street lighting. Illumination from outside the airport results in a strong night sky glow to the west. The illuminated buildings of Canary Wharf and central London are prominent night time features.
- 7.3.5 The existing airport terminal is a relatively discrete flat roofed building, of approximately 12.8m in height with the air traffic control (ATC) tower at a maximum height of 14.87m (20.36m AOD), located at the western end of King George V Dock (KGV Dock). The ATC Tower is due to be demolished now that Digital Air Traffic Control Tower (DATCT) has been constructed on the southern dockside.
- 7.3.6 The runway is located on a spit of land to the north and east of the terminal which separates Royal Albert Dock from KGV Dock. The existing aircraft stands (with lighting masts at 12m height) are located between the runway and terminal, serviced by piers which extend west and east from the terminal building. The existing East Pier is 9m high and extends along the south side of aircraft stands 21-24, ending in a short length of noise barrier (8m high) which screens aircraft from residents to the south of the airport.
- 7.3.7 The 2015 UES included an assessment of Townscape and Visual Effects. This concluded that the proposed new terminal buildings (WTE, WEC, ETE and New East Pier) would generally enhance the setting of the Docks and improve the aesthetic quality of the airport, with only limited non-significant adverse effects on local residents. A further Visual Impact Assessment completed by RPS in 2016 in support of proposed DATCT also determined that there would be no significant adverse effects from this new structure at any of the selected key views.
- 7.3.8 There would be no physical changes to the approved airport buildings and infrastructure or flight numbers. The proposed changes to the CADP1 application and the subject of the S73 application are therefore not anticipated to give rise to any new or materially different likely significant townscape and visual effects. As such, it is proposed to scope this topic out from the new EIA.

7.4 Ecology and biodiversity (Scoped Down)

- 7.4.1 The ecological value of the airport site is generally considered to be low. None of the plants present on site are listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or are otherwise of conservation interest, nor is it considered that the site contains habitat suitable to support statutorily protected species or species of conservation interest. The potential to increase biodiversity on site is also severely constrained by the need to discourage birds and other species that would present a risk to aircraft or otherwise conflict with CAA safety requirements.
- 7.4.2 Notwithstanding, in accordance with Condition 36 of the CADP1 permission, an approved landscaping scheme will be implemented at the airport, including the planting of indigenous plant species which contribute towards biodiversity whilst minimising bird attraction. These new landscaping areas will be monitored and managed to ensure their successful establishment.

- 7.4.3 Condition 56 of the CADP1 permission also requires the Airport to develop and implement a Sustainability and Biodiversity Strategy. The Strategy is reviewed every 3 years, with the latest iteration produced in 2021 setting out new targets, actions and initiatives to enhance biodiversity off-site and to promoting access to, and the appreciation of, biodiversity in the wider community.
- 7.4.4 The 2015 UES concluded that there would be no significant adverse effects on terrestrial ecological receptors subject to the aforementioned mitigation measures being implemented. However, as this assessment was based on an ecological survey of the airport site completed in 2013, it is proposed to undertake a further Preliminary Ecological Appraisal (PEA) at this juncture.
- 7.4.5 The PEA will comprise a desk study and Phase 1 Habitat Survey. As part of the desk study, Greenspace Information for Greater London CIC (GiGI) will be contacted for details of non-statutory designated sites and records of protected and notable species within 1km of the site. Information about statutory designated sites within 5km would be gathered from freely available sources such as the MAGIC website.
- 7.4.6 The PEA will follow the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and take account of the standard Phase 1 Habitat Survey methodology as set out by the Joint Nature Conservation Committee (JNCC) in the *Handbook for Phase 1 Habitat Survey. A technique for environmental audit*.
- 7.4.7 A Preliminary Ecological Appraisal Report (PEAR) will be provided with the ES which will confirm whether the site now supports any protected or notable habitats or species, and whether it has the potential to do so. This is expected confirm the findings of the UES 2015 i.e. that the airport has no intrinsic habitat value and the impacts of the construction of the remaining elements of CADP1, and the S73 changes will have a negligible effect on terrestrial ecology and biodiversity.
- 7.4.8 The regard to aquatic ecology, the KGV Dock wall was surveyed in 2013 during which an abundance of aquatic invertebrates was recorded which are likely to be a food source for fish. The Royal Docks support a variety of fish species such as Grey Mullet (*Chelon labrosus*), Tench (*Tinca tinca*), Pike (*Esox lucius*) and Sea Bass (*Dicentrarchus labrax*). This constitutes a relatively unusual mix of both sea and freshwater fish species, arising as a result of the docks location being transitional between saline seawater and freshwater. To mitigate against the loss of part of the KGV dock wall associated with CADP1, artificial fish refugia were installed in the dock in 2017 in accordance with Condition 68: Fish Refugia of the CADP1 planning permission. Periodic checks on the refugia are planned to take place to monitor their successful colonisation, including by survey scheduled in June 2022. Water quality monitoring will also continue to be undertaken to ensure there are no detrimental effects on biochemistry and sedimentation through the water column during the construction of the CADP1.
- 7.4.9 The construction works within KGV Dock (i.e. the piling and deck to provide the new stands and parallel taxiway) are now complete and there are no proposed changes to the remaining, as yet unbuilt, CADP1 buildings and infrastructure. The proposed changes to the CADP1 application and the subject of this S73 application are therefore not anticipated to give rise to any new or materially different likely significant effects on sensitive ecological receptors. The forthcoming ES will however include a summary of the findings of the 2015 UES, subsequent ecological surveys undertaken at the site and the mitigation measures that have been implemented in accordance with the relevant CADP1 planning conditions.

7.5 Archaeology and built heritage (Scoped Out)

- 7.5.1 The airport is located within a London Borough of Newham (LBN) designated Archaeological Priority Area. As part of its updated Local Plan, LBN published an evidence-based report: Archaeology Priority Areas (Public Consultation Version 2, February 2015). This identifies the site as being located in a Tier 3 Archaeological Priority Area (Newham APA 3.3: Royal Docks).
- 7.5.2 There are no Scheduled Ancient Monuments within a 1km radius of the centre of the site, although there are eight listed buildings. The Royal Docks are not listed and are not within a designated Conservation Area.
- 7.5.3 The UES submitted in 2015 included a comprehensive assessment of the CADP1 proposals on archaeology and built heritage. Pre-Commencement Condition 62: Archaeology attached to the CADP1 planning permission, which required the implementation of a programme of archaeological evaluation in accordance with a Written Scheme of Investigation (WSI), has since been discharged. The WSI was agreed with the LPA's Archaeological Adviser (GLAAS) and approved by the LBN. These works have included geo-archaeological boreholes with sub-surface topographic modelling plus a 'Level 2' photographic record of KGV Dock.
- 7.5.4 The airport is also mindful of the need to preserve and reflect elements of the history of the Docks. Whilst not a formally listed heritage feature, the KGV Dock and its surviving pontoons ('Dolphins'), dock wall and adjoining dockside features, such as sections of old railway tracks, do have some heritage value. Therefore, the airport has invested considerable time and resources in surveying and recording these features
- 7.5.5 There would be no changes to infrastructure or new areas of hardstanding at the airport associated with the forthcoming S73 application. Accordingly, it is not considered likely that there would be any new or materially different likely significant effects on both below ground and above ground heritage assets. As such, it is proposed to scope this topic out from the new EIA.
- 7.5.6 Nevertheless, the ES will include a brief account of the impacts previously identified in the 2015 UES and any mitigation which has since been implemented in accordance with the planning conditions attached to the CADP1 permission.

7.6 Ground conditions and contamination (Scoped Out)

- 7.6.1 Based on the British Geological Survey (BGS) mapping (1:50,000 scale) and previous intrusive site investigation reports carried out between 2001 and 2013, the stratigraphic sequence beneath the airport comprises Made Ground, Alluvium, River Terrace Deposits, Lambeth Group and Thanet Sand Formation. There are no recommended or potential Regionally Important Geological Sites (RIGS) or Locally Important Geological Sites (LIGS) within the LBN.
- 7.6.2 The airport site is predominantly comprised of hard surfaces. Some limited soft-standing exists to the north-west of the site, in the vicinity of the fire training ground. Numerous former industrial land uses were present approximately 100m to the south of the site. A former gas works was located approximately 100m to the south of the site from at least 1873, and to the east of this a sewage works and chemical factory, from 1896.
- 7.6.3 A tank farm, operated by BP, is located within a fenced enclosure behind the western end of the West Pier. Four above-ground storage tanks (AST) totalling 710,000L capacity are understood to store aviation fuel. Approximately 152,000L of aviation fuel is pumped into the ASTs each day via delivery tankers. There are some general hazardous waste storage, including waste oils and 'jet slops' associated with the tanks.

- 7.6.4 Potential sources of contamination relate to bulk fuel storage and aircraft maintenance, including refuelling and de-icing. The areas of fuel storage, aircraft maintenance and fire training ground are well maintained and managed with surface run-off draining to dedicated interceptors.
- 7.6.5 The 2015 UES included a comprehensive assessment of the potential impacts of the CADP1 development on ground conditions and concluded that there would be no significant adverse effects during both construction and operation, subject to appropriate mitigation being adopted. Condition 39: Contamination of the CADP1 Permission requires that further ground conditions investigations are undertaken prior to commencement of each phase and that an appropriate remediation strategy be submitted to an approved by LBN. These investigations have since been undertaken and Condition 39 has been partially discharged.
- 7.6.6 There would be no changes to infrastructure or new areas of hardstanding at the airport associated with the forthcoming S73 application. Accordingly, it is not considered that there would be any new or materially different likely significant effects on ground conditions and, as such, it is proposed to scope this topic out from the new EIA. Nevertheless, the ES will include a brief account of the impacts previously identified in the 2015 UES and the findings and recommendations of the investigation works undertaken since in accordance with Condition 39.

7.7 Waste (Scoped Out)

- 7.7.1 The majority of airport waste is currently produced by airlines, tenants and retail concessions. This includes in-flight waste, terminal waste, aircraft maintenance waste, catering waste and general waste from passengers. Furthermore, waste is produced by airport staff, tenants (office waste) and retail concessions.
- 7.7.2 The airport currently recycles a range of waste materials including paper, cardboard, cans, and plastic packaging. This is segregated on site at a central storage area ('the waste hub') and removed by the waste contractor on a daily basis.
- 7.7.3 Various initiatives to increase recycling rates have recently been implemented at the airport, including the transfer of waste using clear bags to assist in the identification of waste types. Furthermore, a number of workshops have been run to increase waste recycling awareness amongst staff, concessions and the waste contractor.
- 7.7.4 Construction waste arising from the CADP1 development works is managed in accordance with the Waste Management Strategy, submitted to and approved by LBN in accordance with Condition 70 of the CADP1 planning permission. The Proposed Development is not anticipated to result in any changes in the volume or composition of construction waste generated by the remaining elements of the CADP.
- 7.7.5 The 2015 UES identified a negligible to minor adverse effect from waste produced during the operational phase of CADP. Waste production at the airport will inevitably increase under the revised proposals due to the increase in the number of arriving and departing passengers. However, volume of waste generated as a result of these additional passengers is still considered to be relatively modest in the context of all waste produced within LBN as a whole and accordingly, the additional waste generated is not likely to adversely impact existing and proposed waste infrastructure.
- 7.7.6 Condition 56 of the CADP1 permission requires the airport to develop and implement a Sustainability and Biodiversity Strategy. The Strategy is reviewed every 3 years, with the latest iteration produced in 2021. The Strategy includes targets and initiatives to minimise operational waste production and promote sustainability by monitoring waste leaving the airport more closely, raise awareness to staff on recycling, and develop ways to monitor how and where waste is generated at the airport.

7.7.7 In conclusion, it is not considered that there would be any new or materially different likely significant effects with regards to waste and that this topic should be scoped out of the ES.

7.8 Major Accidents and Disasters (Scoped Out)

7.8.1 The risk of 'Major Accidents and/or Disasters' has been introduced as a potential consideration under the EIA Regulations 2017 and, where applicable, requires the potential likely significant effects resulting from, and relating to, major accidents and disasters relevant to a development to be considered in the EIA process.

7.8.2 A major accident is defined for the purposes of this report as an occurrence resulting from an uncontrolled event caused by a man-made activity or asset leading to serious damage or destruction of receptors. The term 'disaster' is used to describe a natural occurrence leading to serious damage or destruction of receptors. In both cases, the occurrence could be either immediate or delayed.

7.8.3 In respect to airports, this topic can be largely captured under the heading of 'Third party risk', which includes *inter alia*:

- the fatality risk to people on the ground from the effects of aircraft accidents;
- birdstrike risk, i.e. risk of collisions occurring between aircraft and large birds; and
- the risk of wake vortex damage generated by aircraft in flight to properties.

7.8.4 With regard to fatality risk, it should be noted that the number of aircraft accidents worldwide is extremely low in comparison to other modes of transport and industrial activities. Notwithstanding, in proximity to the ends of airport runways the Government has established Public Safety Zones (PSZ) in order to reduce even further the number of people on the ground exposed to such risk. Under the PSZ policy², the Secretary of State regards the area closest to the runway as a Public Safety Restricted Zone (PSRZ). Regardless of the number of commercial ATMs, the PSRZ is set (for an aerodrome such LCY with greater than 45,000 ATMs) at 500 metres from the landing threshold at each end of the runway (75 metres from the runway centre line) and there is a general presumption against development and people should not be expected to live or have their workplaces within such areas.

7.8.5 Government Policy also defines a Public Safety Controlled Zone (PSCZ) extending to 1,500 metres from the landing threshold (140 metres from the runway centre line), where the presumption against development still applies but there are a two types of exceptions i) extensions or alterations or changes of use to properties where the number of people occupying the property do not increase beyond the existing or consented position; and ii) certain forms of new or replacement development which involve a low density of people living, working or congregating.

7.8.6 Under government policy, there would be no change to the PSRZ or PSCZ because of the project. The highest risk areas remain within these zones and where there would continue to be a presumption against development within them.

7.8.7 Against these PSZ policy criteria, the estimated changes to fatality risk derived from the Proposed Development is considered to be negligible and not significant. Moreover, no additional aircraft movements are sought (beyond the approved 111,000 per annum cap) and the PSZ was previously considered in the UES.

7.8.8 The level of bird strike risk has the potential to be changed by any development that alters the number of birds likely to be present, the bird types seen or their movement patterns by way of

increasing or reducing the attractiveness of a particular area to birds. However, as the Proposed Development does not alter the existing natural features in or around the airport, there is no likelihood that it will have any significant effect on the existing number, type or movement patterns of birds in the area.

- 7.8.9 Due to steep angle of take off at LCY and the low density of properties under the immediate flightpaths, the incidence of wake vortex damage to buildings is currently very low. The PSZ policy limits the potential for development in these areas, therefore limiting the number of properties that could be exposed to any additional risk in the future. Even accounting for higher proportion of large aircraft, it is highly unlikely that there will be any increase in the incidence of wake vortex damage.
- 7.8.10 The potential effects of natural disasters on the airport include, for example, extreme weather and flooding. As described above, effects associated with flood risk will be considered in an updated Flood Risk Assessment (FRA) submitted with the planning application, whilst climate change impacts will be considered in a dedicated chapter of the ES. In summary, the airport suffers no exceptional climatic conditions or significant flood risk that regularly affect its operations.
- 7.8.11 Construction of the remaining CADP1 structures could in theory be the cause of major accident, for example indirect effects on the existing fuel storage tanks (e.g. collision with construction vehicle) leading to an explosion or significant pollution of the Docks. However, all construction works will be managed in accordance with the approved Construction Environment Management Plan (CEMP) and relevant regulations such that the risk of such effects occurring is considered to be extremely low and similar to other ongoing activities at the airport.
- 7.8.12 In regard to other potential 'major accidents and/or disasters' (e.g. terrorism incident, fire or explosion), LCY, like all modern airports, operates to very stringent standards of safety and security in accordance with UK and international aviation law and the relevant Civil Aviation Authority (CAA) mandated standards for design and operation. The proposed development has no bearing on these existing controls.
- 7.8.13 Occupational risks resulting from day-to-day activities which may affect one to two people (e.g. slips, trips and falls) and which are managed under the general obligations of the Health and Safety at Work Act are not generally recognised as a major accident. They will continue to be managed by LCY under the Management of Health and Safety at Work (MHSW) regulations.
- 7.8.14 In light of the above, it is considered that the EIA topic of 'Major Accidents and/or Disasters' should be scoped out of the ES.

8 SUMMARY OF KEY ISSUES

8.1 Request for a Scoping Opinion

- 8.1.1 This report accompanies and informs a request for a Scoping Opinion from LBN, with reference to the procedures set out in Regulation 15(1) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 8.1.2 In accordance Regulation 15(3), should the local authority consider that they have not been provided with sufficient information to adopt a Scoping Opinion, they should notify the person making the request of the points on which they require additional information.
- 8.1.3 As per Regulation 15(4), the local authorities shall now consult with the Applicant and the consultation bodies and adopt their Scoping Opinion within 5 weeks of receiving this request.

8.2 Summary of Topics to be Scoped In, Scoped Down or Scoped Out of the EIA

Scoped In topics:

- Socio-economics
- Traffic & Transport
- Air Quality
- Noise & Vibration
- Carbon and Climate Change
- Human Health.

Scoped Down Topics:

- Water Resources & Flood Risk
- Ecology & Biodiversity.

Scoped Out topics:

- Townscape and Visual Impact
- Archaeology and Built Heritage
- Ground Conditions & Contamination
- Waste
- Major Accidents and/or Disasters

Having reviewed the information set out in this Scoping Report, it is expected that LBN and the relevant statutory consultees will concur with the proposed scope of the EIA. However, should the Council require any further information or clarification, RPS (on behalf of the Applicant) would be happy to provide this or to meet with Officers to discuss such matters.

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