Classification: Public

EASTERLY ALTERNATION INFRASTRUCTURE PROJECT

PLANNING STATEMENT

OCTOBER 2024

Heathrow

DOCUMENT CONTROL

TITLE	Planning Statement
DOCUMENT NUMBER	19309-XX-EC-XXX-000003
STATUS	-
CLASSIFICATION	-
AUTHOR	John Rhodes
DATE	October 2024
VERSION	-

DOCUMENT APPROVAL

Approved by	Role	Signature	Date

DOCUMENT HISTORY

Version	Date	Author	Changes

STAKEHOLDERS

Name	Role

CONTENTS

1. INTRODUCTION

1.1 Overview

1.1.1 This Planning Statement has been prepared on behalf of Heathrow Airport Limited ('Heathrow' or 'the Applicant') in support of an application to the London Borough of Hillingdon ('LB Hillingdon') for the development of infrastructure that will facilitate full runway alternation when Heathrow Airport ('the Airport') is operating in an easterly direction ('the Proposed Development').

1.1.2 Specifically, this will mean departures and arrivals in an easterly direction can alternate (or swap) between the northern and southern runways, as they currently do on westerly operations. Runway alternation in an easterly direction has not occurred at the Airport routinely because it was prevented by an historic agreement known as the Cranford Agreement. The Cranford Agreement was ended by the Government in January 2009 following consultation, in order to redistribute noise more fairly around the airport and provide predictable periods of respite to communities under flight paths during easterly operations.

1.1.3 The Proposed Development will provide the infrastructure required to implement that decision and to enable full alternation of the runways during easterly operations. Full runway alternation would comply with that government policy decision and provide a fairer, more equitable distribution of noise around the Airport.

1.1.4 No change is proposed to other airport operations or to the number of flights at Heathrow.

1.1.5 Further information on the Cranford Agreement is set out in **Section 2** and information on the infrastructure proposed in this application is set out in **Section 3.**

1.2 Background

1.2.1 This Planning Statement explains the Proposed Development but also sets out the background to the project and outlines the lessons learned from a previous planning application[1] submitted to the LB Hillingdon for very similar works to enable easterly alternation in 2013. That application was refused but the decision was successfully appealed to the Secretaries of State for Communities & Local Government and for Transport and planning permission granted in 2017, following a public inquiry. That permission was not implemented and has now lapsed.

1.2.2 It should be noted that the previous permission was not implemented as HAL was required to address the implications of the Airports National Policy Statement ('ANPS') published in 2018 which supports the need for new airport capacity in the South East of England and a new north west runway at Heathrow Airport. Easterly alternation works were to be taken forward as part of Heathrow's expansion proposal (the third runway project) but work on the expansion project was paused in the pandemic in 2020.

[1] Planning Application Ref. 41573/APP/2013/1288

1.2.3 It is therefore proposed to seek a further planning consent for very similar works to those that were proposed in 2013, in order to enable easterly alternation.

1.2.4 In the preparation of this planning application Heathrow has reviewed the requirements for the infrastructure necessary to enable runway alternation on easterly operations and that exercise has resulted in some changes to the layout of the physical infrastructure proposed in the previous planning application, although all ground works are contained within the airport boundary.

1.2.5 Ordinarily this type of infrastructure (which primarily consists of new taxiways to serve the western end of the northern runway), would be constructed using Heathrow's permitted development rights, but the new infrastructure would enable easterly alternation, which could have significant environmental effects, and therefore, a planning application is required. Many of the relevant principles, however, were examined and established through the earlier planning consent.

1.3 Structure of the Planning Statement

1.3.1 This Planning Statement is structured as follows:

Section 2	Sets out the background to the application.
Section 3	Describes the proposed development.
Section 4	Sets out the planning policy context.
Section 5	Explains the 2017 planning decision, key issues, conclusions and lessons learned.
Section 6	Explains the outcome from Heathrow's consultation and engagement.
Section 7	Assesses the need to mitigate the impact of the proposals and the measures proposed in the application to do so.
Sections 8, 9, 10 and 11	Assess the issues considered in the Environmental Statement (and Habitats Regulation Assessment).
Section 12	Provides a summary and conclusions.

1.4 Planning Application Documents

1.4.1 This Planning Statement forms part of a comprehensive suite of documents which are submitted in support of the Proposed Development. The documents required to form part of and to support the application were agreed with LB Hillingdon and set out in a Planning Performance Agreement dated 30 November 2023.[2] This Planning Statement is accompanied, therefore, by the additional application documents listed below.

[2] Planning Performance Agreement ref. DocuSign Envelope ID: BB8523A5-4364-4300-966A-CE098BF30647

Document	Author
This Planning Statement	Quod
Airport Safeguarding Statement (Appendix 6 Planning Statement)	Airport Safeguarding Limited
Proposed Planning Obligation(s) / Heads of Terms (draft) (Appendix 7 Planning Statement)	Eversheds Sutherland
Sequential Test Assessment (Appendix 8 Planning Statement)	Logika
Design and Access Statement	Jacobs
Application Form (including data required by the Greater London Authority Data Standard)	Quod
Covering Letter (including list of drawings and documents)	Quod
Drawings:	Jacobs
Easterly Alternations Infrastructure Location Plan (scale of 1:5,000)	
Proposed 09L Runway Hold Area General Arrangement (scale of 1:1,000)	
Proposed 09L Runway Hold Area Pavement Layout (scale of 1:1,000)	
09L Runway Hold Area Existing Contours (scale of 1:1,000)	
09L Runway Hold Area Proposed Contours (scale of 1:1,000)	
Easterly Alternations Infrastructure 09L Runway Hold Area Site Plan (scale of 1:1,000)	
Easterly Alternations Infrastructure 09L Runway Hold Redundant Pavement Site Plan (scale of 1:1,000)	
Easterly Alternations Infrastructure Surface Water Catchment Plan (scale of 1:5,000)	
Proposed Noise Barrier General Arrangement (scale of 1:1,000)	
Easterly Alternations Infrastructure Noise Barrier Site Plan (scale of 1:1,000)	

Document	Author
Longford Noise Barrier Typical Sections 5m barrier (scale of 1:50)	
Longford Noise Barrier Typical Sections 7m barrier (scale of 1:50)	
Environmental Statement and Appendices:	WSP/Logika
Chapter 1 – Introduction	
Chapter 2 – Location of the Proposed Development	
Chapter 3 – Description of the Proposed Development	
Chapter 4 – Legislative and Policy Context	
Chapter 5 – Approach to EIA	
Chapter 6 - Air Quality	
Chapter 7 - Noise and Vibration	
Chapter 8 - People and Communities	
Chapter 9 - Public Health	
Chapter 10 – Landscape and Visual Impact Assessment	
Chapter 11 - Historic Environment	
Chapter 12 - Biodiversity	
Chapter 13 - Cumulative Effects	
Appendix 1.1 – Introduction Figures	
Appendix 1.2 – Glossary of terms and abbreviations	
Appendix 1.3 – Easterly Alternations Infrastructure Project Team and Statement of Competencies	
Appendix 1.4 – Location of information within the Environmental Statement	
Appendix 1.5 – Scoping Report	
Appendix 1.6 – Scoping Opinion	
Appendix 2.1 – Wake Vortex Statement	
Appendix 2.2 - Heathrow Airport and its Surrounds Figures	
Appendix 3.1 - Description of the Proposed Development Figures	
Appendix 4.1 – Heathrow Airport Planning History	

Document	Author
Appendix 5.1 – Longford Engagement Letter and Survey	
Appendix 6.1 - Air Quality Modelling Methodology	
Appendix 6.2 - Air Quality Detailed Results	
Appendix 6.3 - Air Quality Figures	
Appendix 6.4 - Air Quality Longford Monitoring Survey	
Appendix 7.1 - Introduction, Human Hearing and Acoustics Terminology	
Appendix 7.2 - Noise Management and Mitigation at Heathrow Airport	
Appendix 7.3 - Noise and Vibration Baseline Conditions	
Appendix 7.4 - Construction Noise and Vibration	
Appendix 7.5 - Air Noise	
Appendix 7.6 - Ground Noise	
Appendix 7.7 - Combined Air and Ground Noise	
Appendix 7.8 - Community Focus Areas	
Appendix 8.1 – Equalities Statement	
Appendix 8.2 – People and Communities Figures	
Appendix 9.1 - Health and Wellbeing Data Tables'	
Appendix 9.2 - Health Figures	
Appendix 10.1 - LVIA Methodology	
Appendix 10.2 - Viewpoint Analysis	
Appendix 10.3 - LVIA Figures	
Appendix 11.1 – Archaeology Desk Study	
Appendix 12.1 – Report to Inform the Appropriate Assessment	
Appendix 12.2 - HRA Screening Report	
Appendix 12.3 - Preliminary Ecological Appraisal	
Appendix 12.4 - Biodiversity Net Gain Assessment	
Appendix 12.5 - Justification for Scoped Out Ecological Features	
Appendix 12.6 - Arboricultural Impact Assessment	

Document	Author
Appendix 12.7 - Biodiversity Figures Appendix 13.1 – Long List of Committed Developments Appendix 13.2 - Shortlist of Committed Developments Appendix 13.3 – Cumulative Effects Assessment Figures Environmental Statement Non-Technical Summary	
Other application documents	
Whole Life Carbon Assessment Report	WSP/Logika
Flood Risk Assessment	Logika
Circular Economy Statement	VolkerFitzpatrick Ltd / VolkerWessels UK Ltd
Construction Environmental Management Plan (including draft Site Management Plan as appendix)	VolkerFitzpatrick Ltd / VolkerWessels UK Ltd
Statement of Community Involvement	Mott MacDonald

2. PLANNING BACKGROUND

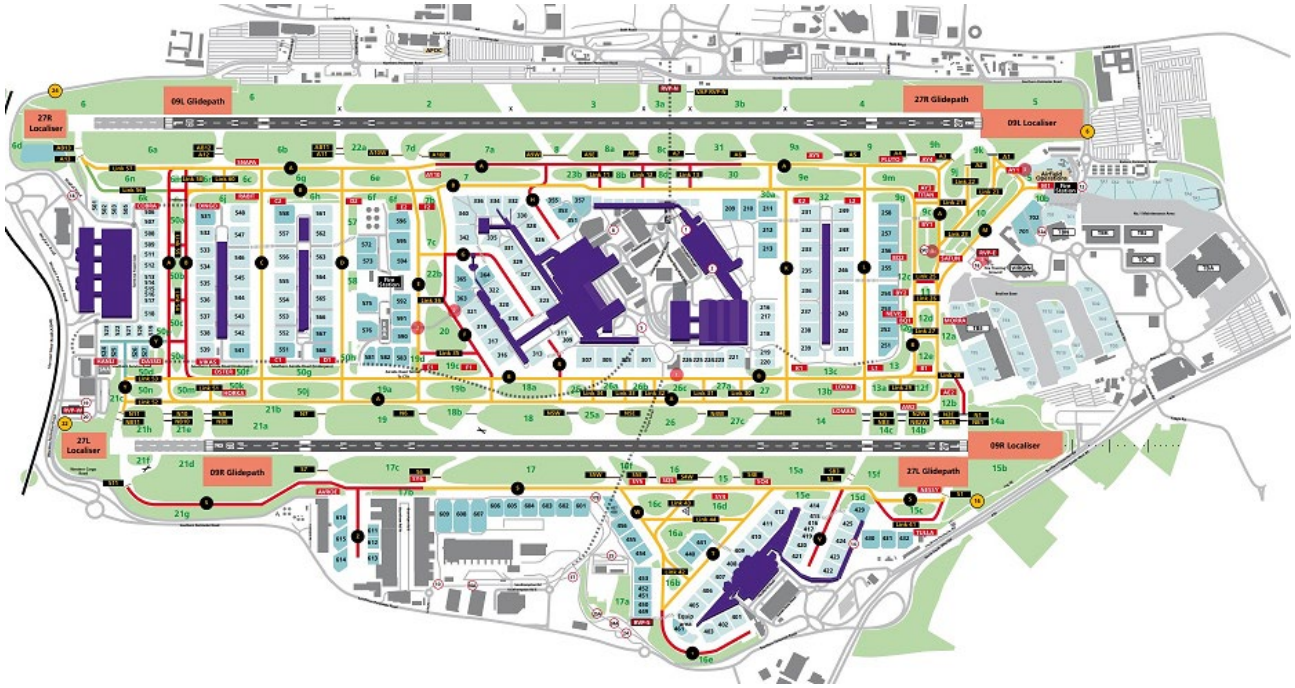
2.1.1 This section sets out the background to the planning application, including to the Cranford Agreement and its termination.

2.2 The Existing Infrastructure

Site Location

2.2.1 The Airport is located circa 15 miles to the west of Central London and lies within the southern area of the borough of Hillingdon. The Airport also borders with the London Borough of Hounslow to the east and south, with Spelthorne borough to the south and southwest and Slough borough to the north-west. Windsor & Maidenhead lies further to the west, and Windsor is approximately in line with the northern runway. The airfield layout is shown in **Figure 1**.

Figure 1 – Airfield layout[3]



2.2.2 The Airport occupies approximately 1,227 hectares (ha) of land and operates two parallel runways, with four operational terminals.

2.2.3 The existing infrastructure is comprised of the hardstanding runways, terminal buildings, taxiways, aprons, auxiliary buildings and airfield grassland (see **Figure 1**).

[3] Adapted from HAL (2023). Airfield Map effective October 2023. Available from https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/team-heathrow/airside/airfield-maps/Heathrow_Overview_Map_V65_A3_v10.pdf.

2.2.4 A summary of the existing infrastructure is set out below.

1. Runways: the northern runway (known as 09L/27R) with a length of 3,902 metres and the southern runway (known as 09R/27L) of 3,660 metres, both lie east/west in their orientation.

2. Terminals: the Airport has four terminals operating where passengers arrive at and depart from the Airport. Terminal 1 closed in 2015. T2 and T3 form a cluster of terminal buildings known as the Central Terminal Area ('CTA') which sits in the central area of the Airport, between the northern and southern runways. Terminal 4 lies to the south of the airport and Terminal 5 lies at the western end of the airport between the runways.

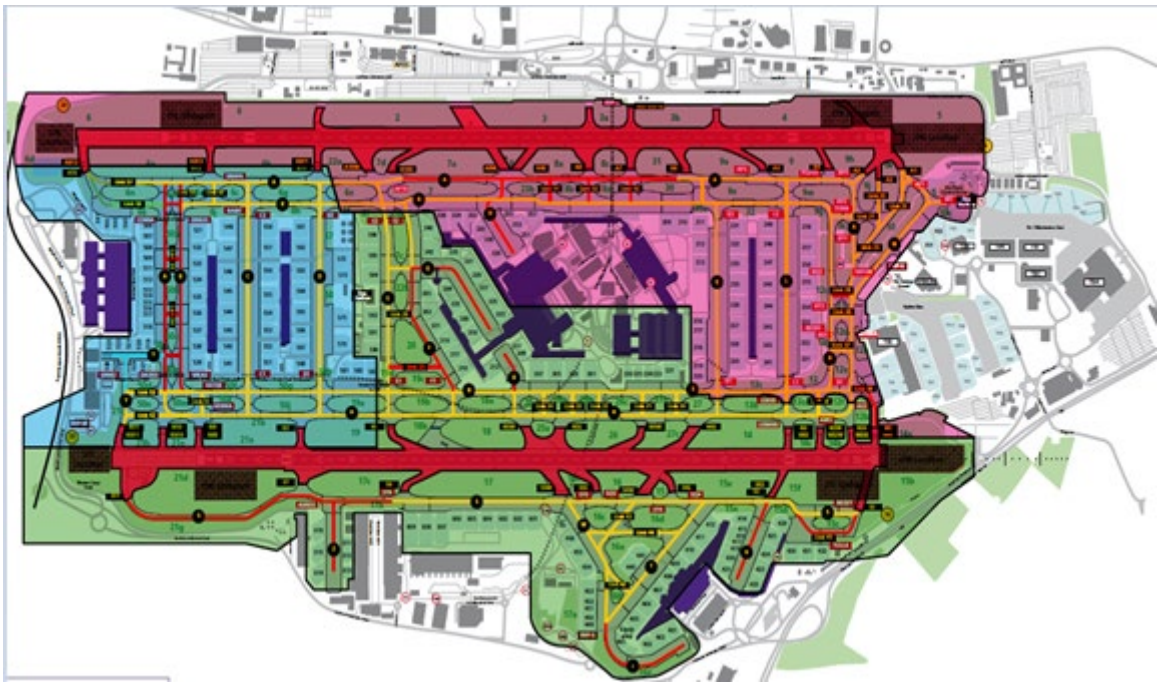
3. Taxiways: the Airport has a taxiway network used by aircraft to circulate between terminals and the runways under the guidance of Air Traffic Controllers. The taxiway network comprises four parallel taxiways (two serving each of the runways), which are linked by cross field taxiways. There are also taxiways south of the southern runway, including one parallel taxiway, connecting T4 and the cargo area to the rest of the Airport. Runway links, including exit taxiways and Runway Access Taxiways ('RATs'), connect the parallel taxiways to the runways themselves and are used by aircraft entering and exiting the runways. More minor taxiway links and cul-de-sac taxi lanes connect all the taxiways to the aircraft stands.

4. Aprons: are used for the parking of aircraft, refuelling, and the loading and unloading of passengers and freight. Each terminal building at Heathrow has its own aprons. Additionally, there is a dedicated cargo apron in the south of the Airport for freight aircraft and maintenance aprons in the east of the Airport.

5. Ancillary facilities: are designated to support the operation and maintenance of the Airport. These include maintenance and repair facilities, warehousing and cargo storage facilities and other airport operational land (such as surface water pollution control, balancing ponds, construction compounds for ongoing work, in–flight catering facilities, air traffic control, baggage and parking for service equipment). These are located across the Airport.

2.2.5 The principal circulation network is shown in **Figure 2** below. It is apparent that the scale of taxiways and hold areas at the western end of the northern runway is less developed than at the other runway ends. This is a legacy of the restricted use of the runway caused by the Cranford Agreement.

Figure 2 – Ground Movement Control Map[4]



2.2.6 The Airport is accessible by car, from the M4 and M25 motorways which are located to the north and west respectively. The highway network links the Airport to its surroundings through perimeter roads. The perimeter road immediately to the north of the Airport is called Wright Way (see **Figure 3**). There are eleven car parks for short stay and long stay located within and adjacent to the Airport's boundary, including the POD parking at T5, which allows passengers to get to and from the terminal in a driverless, electric transit solution.

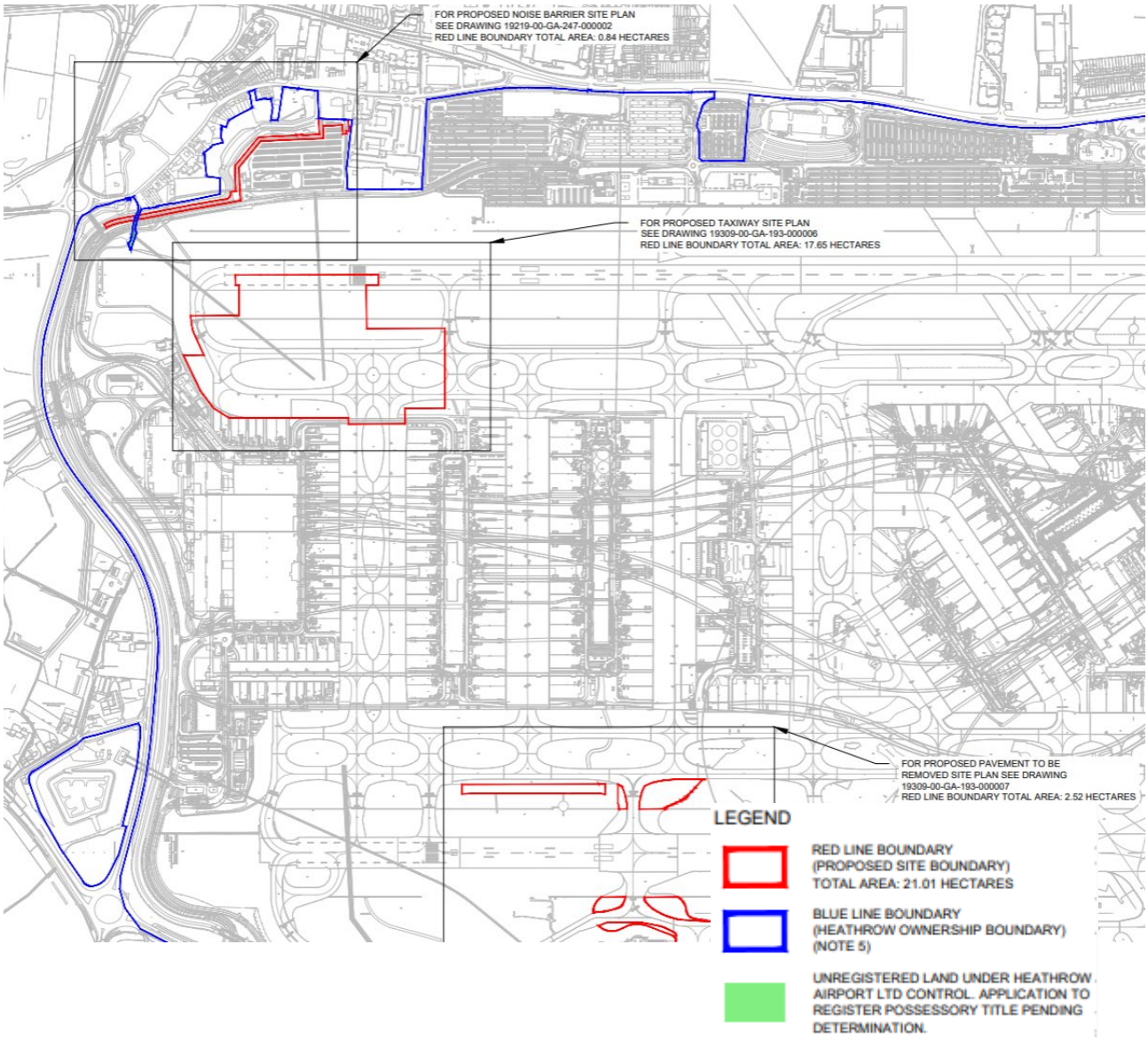
2.2.7 Heathrow is also very well connected by public transport, including the Heathrow Express (from London Paddington), the Elizabeth line (from central London), the London Underground (via Piccadilly line). A rail-air bus link also provides regular connections by bus and coaches between Heathrow Airport and National Rail stations at Feltham, Guildford, Reading, Watford Junction and Woking, to supplement a dense network of bus services.

2.2.8 The Duke of Northumberland's River flows around the western boundary of the airport and encloses the T5 POD car park to the northwest.

2.2.9 **Figure 3** shows these features and also the application site boundary. Hereafter, the land within the red line boundary is referred to as the application site or 'the Site'.

[4] HAL (2023). Ground Movement Control Map effective October 2023. Available from https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/team-heathrow/airside/airfield-maps/Heathrow_Ground_Movement_Map_V57_A3_v10.pdf

Figure 3 – Extract Site Location Plan Ordnance Survey[5]



Current use of the Site

2.2.10 The current use of the Site is airfield and open land. On the line of the proposed noise barrier there is currently an existing wooden noise barrier, approximately 3.0m in height, that runs parallel to Wright Way, the Western Perimeter Road and the Twin Rivers. The noise barrier finishes west of the T5 Pod Car Park where there is a gate access point to the Twin Rivers maintenance track. The access gate is a palisade fence type construction with no noise barrier properties. The majority of the boundary around the T5 POD car park is fenced, with sections of both wooden and wire mesh fence construction approximately 2.0 to 3.0m in height.

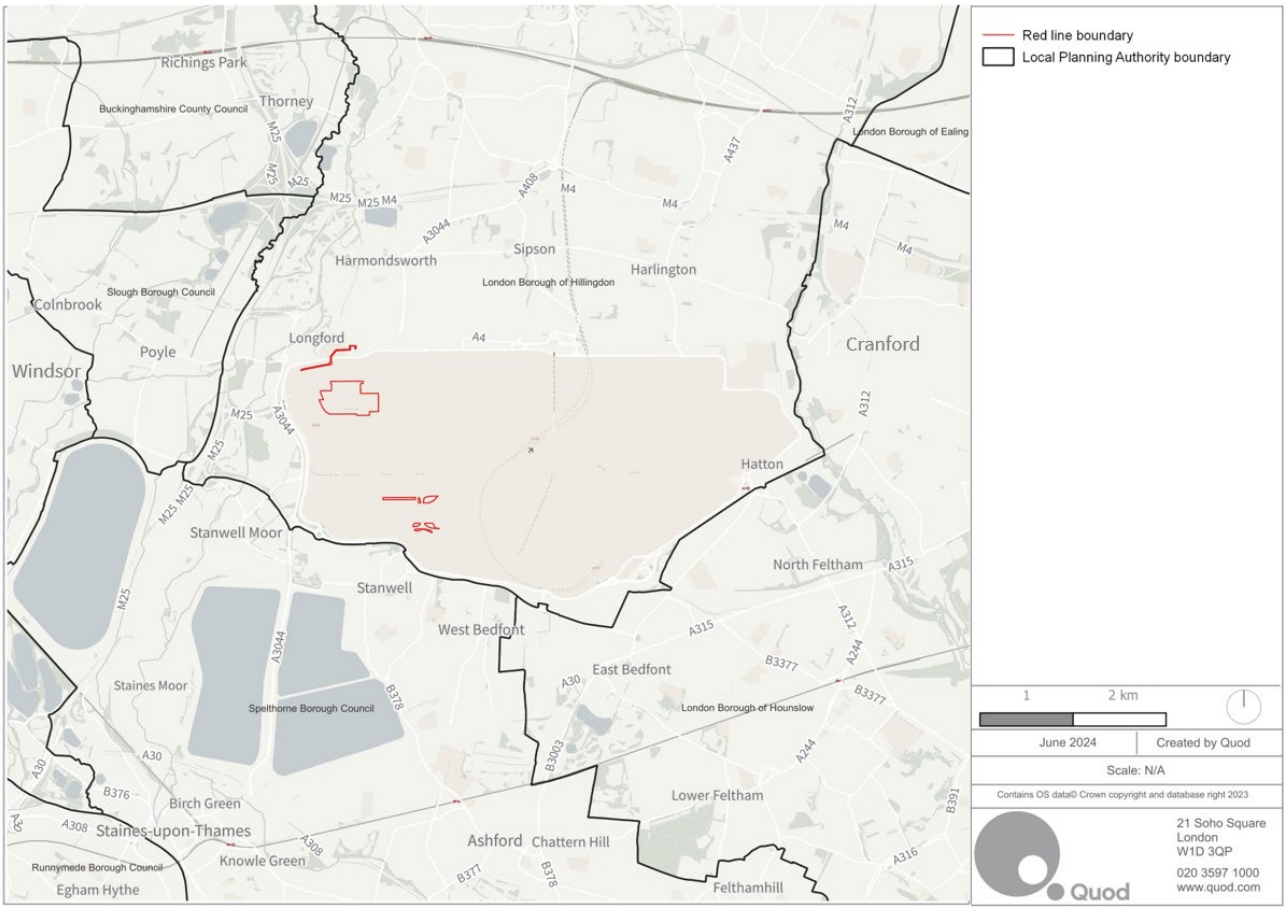
[5] Drawing Ref. 19309-00-GA-193-000001 Version 2.0 produced by Jacobs (23 September 2024)

Surrounding Area

2.2.11 The Airport surrounding area is characterised by a mixed use of hotels, office space, industrial, commercial and residential uses. There are several communities bordering Heathrow's perimeter including (see **Figure 4**):

- To the north: Longford, Harmondsworth, Sipson, Harlington.
- To the east: Cranford and Hatton.
- To the south: West and East Bedfont, Stanwell and Stanwell Moor.
- To the west: Colnbrook, Poyle and Windsor.

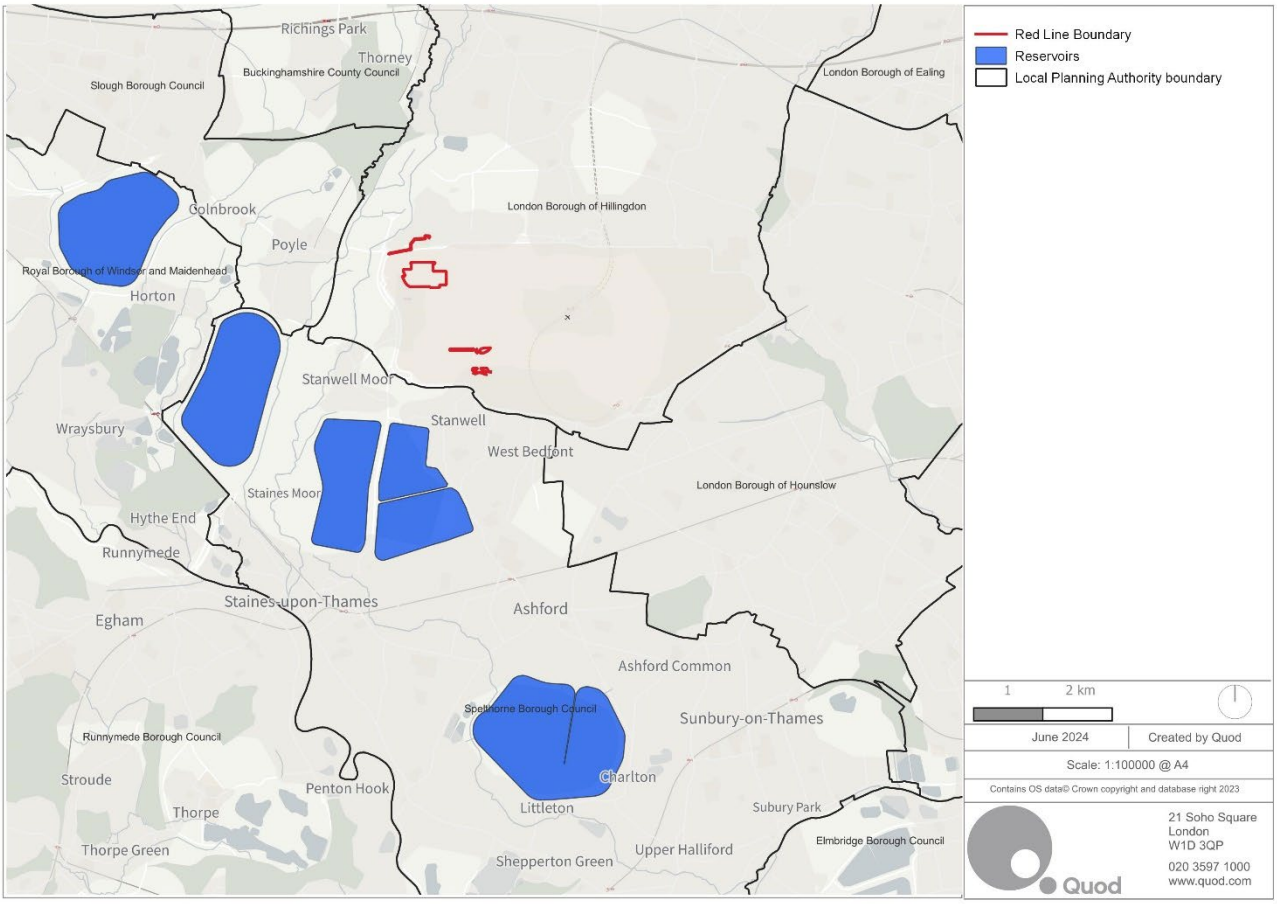
Figure 4 – Location of main communities around Heathrow Airport



2.2.12 Whilst the immediate surroundings are urban areas, to the north-west, south-west and west, the Airport setting is also characterised by land within the Green Belt or other open areas i.e. more rural in character where development is more restricted and other activities take place related with leisure, sports, farming and food production.

2.2.13 To the south and south-west of the Airport in Spelthorne borough are the Wraysbury, Staines and King George VI reservoirs and, in the Royal Borough of Windsor and Maidenhead, the Queen Mother reservoir, which constitute important public water resources with important biodiversity (see **Figure 5**).

Figure 5 – Location of the reservoirs west of Heathrow



2.2.14 To the north west of the Airport lies the village of Longford. Longford is a linear village, laid out either side of the Bath Road. The centre of the village is a Conservation Area, designated in 1988.

Current Airport Operations

2.2.15 The Airport operates 24 hours a day, seven days a week. There are circa 650 aircraft arrivals and 650 departures every day at the Airport, with the number of Air Transport

Movements ('ATMs')[6] capped at 480,000 movements per annum[7], as a condition of the T5 planning permission granted in 2004[8].

2.2.16 The level of ATMs has been close to the capped figure for a number of years, although the Covid-19 pandemic caused a short term dip in movements and passengers (see **Table 1**). Whilst in 2019 the Airport handled approximately 81 million passengers[9] and 476,000 ATMs[10], the numbers reduced significantly in 2020 and 2021. In 2022 the Airport recovered strongly, and that recovery continued through 2023 (see **Table 1**).

Table 1 – Annual Passenger Numbers, Air Transport Movements and Total Aircraft Movements since 2017 at Heathrow Airport

Year	Annual Passengers	Air Transport Movements	Total Aircraft Movements
2017	78,012,825	474,119	475,783
2018	80,102,017	475,624	477,604
2019	80,886,671	475,874	478,059
2020	22,111,009	200,831	204,730
2021	19,393,145	190,032	195,336
2022	61,599,199	376,847	380,305
2023	79,151,723	454,089	456,600

2.2.17 The Airport operates two parallel runways, the northern runway (which is called Runway 09L/27R), and the southern runway (Runway 09R/27L) predominantly in segregated mode (i.e. with one runway used for landings whilst the other is used for take-offs) to facilitate aircraft movements from four different runway ends. Runway numbering reflects points of the compass, and a single runway orientated in an east/west direction would be designated runway '09' when in use in an easterly direction and runway '27' when in use in a westerly

[6] DfT (2022). Guidance Aviation: notes and definitions. Air transport movements: all landings and take-offs of aircraft engaged on the transport of passengers, cargo, or mail on commercial terms. All scheduled movements (whether loaded or empty) and loaded charter movements. A small number of movements including helicopters, aircraft arriving in a declared emergency (and any corresponding departure) and small business aviation aircraft (passenger seating capacity <10) are not classified as ATMs. Available from https://www.gov.uk/government/publications/transport-statistics-great-britain-guidance/aviation-notes-and-definitions

[7] Under Terminal 5 Planning Condition A4, the number of air transport movements at Heathrow Airport shall be limited to 480,000 each year.

[8] Further information available from https://hansard.parliament.uk/Commons/2001-11-20/debates/1ebe6bbb-3c84-4604-84fb-e638ac6fde04/Heathrow(Terminal5)

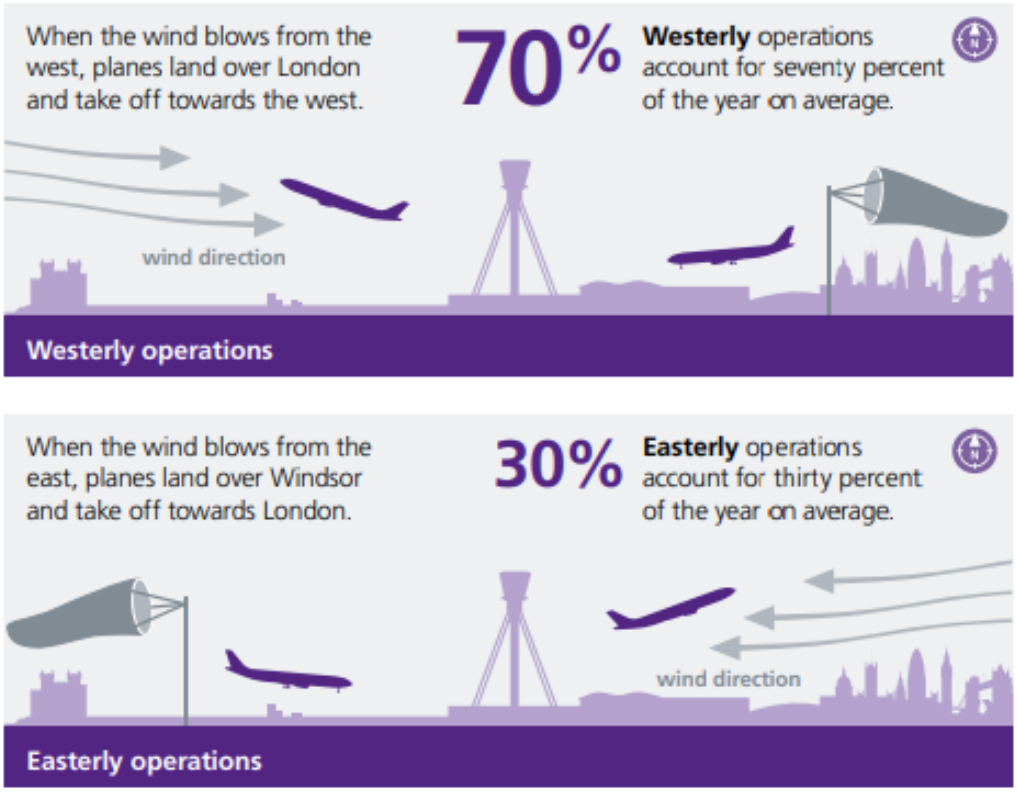
[9] Based on CAA reporting – CAA, (2019). 'Terminal Passengers 2009 – 2019' Available from https://www.caa.co.uk/Documents/Download/3951/e925ed1f-e4b5-4d12-ad1c-e95e0b5b3307/1333

[10] Based on CAA reporting - CAA, (2019). 'Aircraft Movements 2019' Available at: https://www.caa.co.uk/Documents/Download/3951/e925ed1f-e4b5-4d12-ad1c-e95e0b5b3307/1322

direction. Heathrow's two runways are therefore known as 27R (right, for the northern runway) and 27L (left, for the southern runway) when being used in a westerly direction and 09L (northern) and 09R (southern) when used in an easterly direction.

2.2.18 Due to aerodynamic and safety reasons, aircraft typically take-off and land into the wind. As the prevailing wind direction at Heathrow is from a south westerly direction, the Airport is on westerly operations for most of the time, i.e. take-offs are therefore usually towards the west, in the direction of Windsor, whilst arrivals are from the east over central London (known as operating on westerlies). Over the last 20 years (2003-2022) westerly operations have occurred on average very approximately 70% of the time meaning the arrivals and departures to the east have occurred around 30% of the time (see **Figure 6**).[11] The precise percentage balance between west and east can vary year to year as meteorological conditions are never exactly the same. The implications of this are discussed in the **Environmental Statement**.

Figure 6 – Heathrow's current operation – wind direction[12]

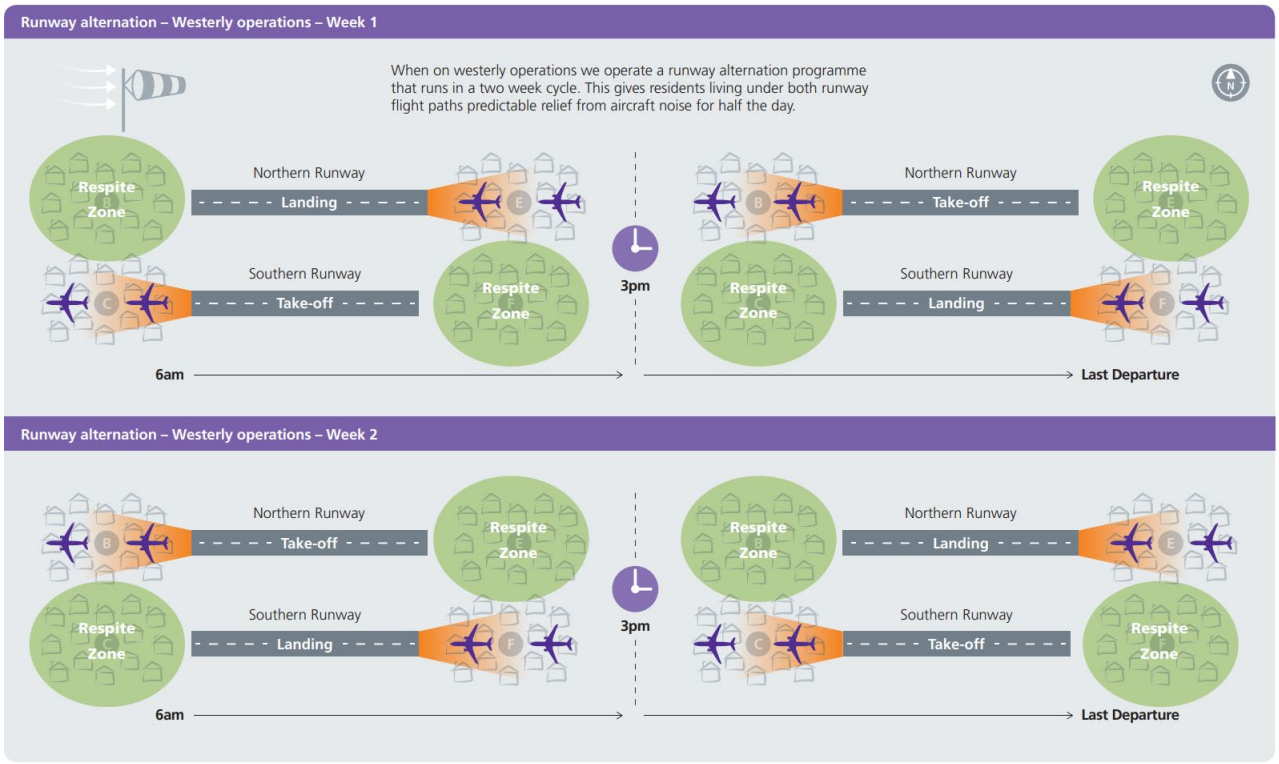


2.2.19 The Airport's runways predominantly adopt a segregated mode of operation. Under segregated mode, at any time, local residents at one end of each runway will not be over

[11] Based on data published by Heathrow – Heathrow Airport Ltd., (n.d.)., 'Operational Data' Available from https://www.heathrow.com/company/local-community/noise/data/reports/operational-data
[12] HAL (2019). Making Better Use of Our Existing Runways. Available from https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/about/consultation/Making%20Better%20use%20of%20our%20existing%20runways.pdf

flown either by arriving or departing aircraft - and will experience what is termed 'respite'[13]. During westerly operations, this activity is swapped in the middle of the operating day. Operationally this means (on westerly operations) that from 06:00 to 15:00 departing aircraft are directed to one runway and arriving aircraft are directed to the other. The schedules are then alternated or swapped to the other runway from 15:00 until the final movement, in order to provide predictable periods of respite to residents at the other end of each runway (see **Figure 7)**.[14]

Figure 7 – Direction of arrivals and departures on 27R and 27L during westerly operations (over a two-week period)

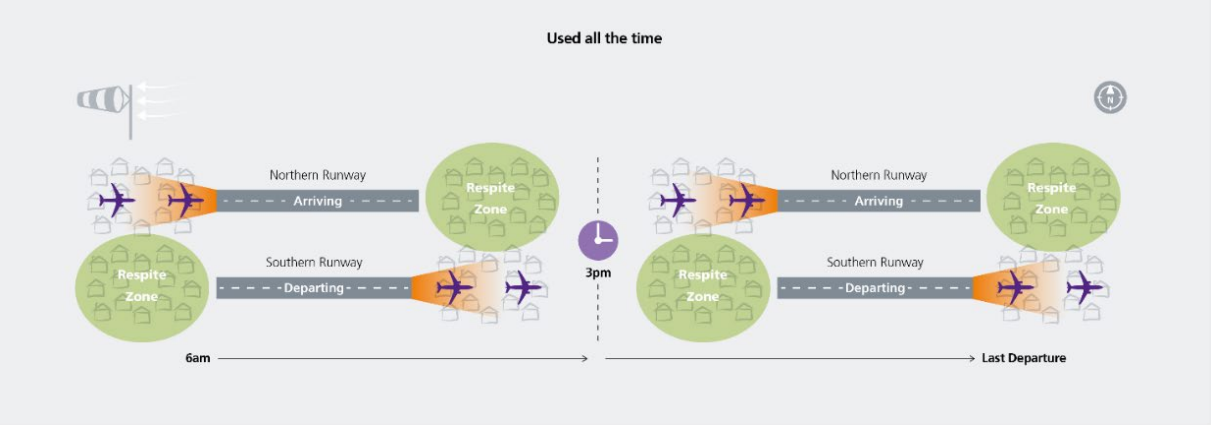


2.2.20 The pattern is also swapped weekly, as shown above, to give greater variation and respite.

[13] Planning Inspectorate (2017). Report to the Secretaries of State for Transport and for Communities and Local Government, File Ref: APP/R5510/A/14/2225774. Available from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/588390/17-02-01_DL_IR_Heathrow_Hillingdon_2225774.pdf

[14] HAL (2023). Easterly Alternation Infrastructure Project, Environmental Impact Assessment, Scoping Report, Paragraph 2.2.3

Figure 8 – Direction of arrivals and departures on 09R and 09L during easterly operations (existing)



2.2.21 Alternation schedules[15] are published in advance by Heathrow and allow communities under the flight paths to understand when they will benefit from predictable periods of respite.

2.2.22 Alternation has been successfully used for westerly operations for many years, providing communities with predictable relief from aircraft arrival and departure noise. However, the Cranford Agreement and the airfield layout which resulted from it has prevented runway alternation from being implemented while the Airport is on easterly operations since the 1950s. Consequently, when the Airport is on easterly operations, residents living in areas such as Windsor (arrivals) and Hatton (departures) experience noise from arrivals and departures throughout the day without respite (see **Figure 8** above).[16]

2.3 The Cranford Agreement

2.3.1 The Cranford Agreement was established by a Ministerial Statement in 1952 to prevent aircraft departure noise impacts affecting the nearby community of Cranford, except in exceptional circumstances (see **Figure 9**). In the 1950s, Heathrow had six runways, arranged in three pairs at different angles in the shape of a hexagram (see **Figure 10**). At that time, Cranford was the nearest and largest population centre to Heathrow's runways. Due to the nature of early jet aircraft, noise from departures was considered to be more disruptive to local communities than noise from arrivals. The Cranford Agreement was therefore an early noise abatement measure which was intended to avoid exposing the nearest population centre to the highest levels of aircraft noise.

[15] Further information available from https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/local-community/noise/operations/runway-alternation/Runway_Alternation_Programme_2024.pdf
[16] Ibid.

Figure 9 – Location of Cranford[17]

Figure 10 – Heathrow Airport in the 1950s

[17] Contains Imagery©2023 Google, Imagery©2023 Bluesky, Getmapping pie, Infoterra Ltd & Bluesky, Maxar Technologies, Map data © 2023, United Kingdom.

2.3.2 In 2007 the Government undertook a major consultation[18] on issues related to Heathrow Airport. Although a significant part of the consultation was focused on the potential for a third runway, a range of other operational issues, including matters relating to the Cranford Agreement were discussed. The Cranford Agreement was described in the Consultation Document published in November 2007, which explained:

"Alternation is not therefore used on easterly operations. This was designed to protect the residents of Cranford, close to the eastern end of the northern runway, from the high noise levels experienced on the ground from departing aircraft. ***The protection of Cranford from departure noise is, however, at the expense of Windsor, which experiences a greater share of arrivals than would otherwise be the case, and to the detriment of Hounslow, which is affected by departures.****"*[19] (emphasis added)

"…At the time it was introduced, noise on take-off was widely regarded as the dominant noise issue. But the circumstances that led to the Cranford Agreement have changed significantly since the 1950s. Technological developments mean that noise on take-off is much reduced, both because of quieter aircraft engines and the improved performance, which means aircraft gain height more quickly."[20]

"…Although the current procedure still benefits Cranford Residents, it also means that there is no runway alternation during easterly operations; departures are normally from the southern runway and arrivals mostly on the north. As a result, Windsor and adjoining areas under the northern runway approach tracks get little relief from the movement of arriving aircraft, and the communities to the east of the southern runway, such as Hatton and North Feltham get little relief from departure noise."[21]

2.3.3 The consultation was informed by a detailed noise assessment prepared by the Environmental Research and Consultancy Department of the Civil Aviation Authority ('ERCD') and its key findings were set out and explained in the Consultation Document in text and in summary tables, as follows:[22]

Table 2 – Adding Capacity at Heathrow Airport: Consultation Report' Tables 13 and 14

Contour level (dBA)	Area (km^2) with Cranford Agreement	Change in the area (km^2) without Cranford Agreement	Population with Cranford Agreement (000s)	Change in population without Cranford Agreement (000s)
>57	119.8	+0.3	261.9	-10.5
>60	65.0	+0.7	105.2	+1.6
>63	38.0	+0.7	50.4	+3.3

[18] DfT (2007). Adding Capacity at Heathrow Airport, Consultation Document. Available from https://webarchive.nationalarchives.gov.uk/ukgwa/20071209144059/http://www.dft.gov.uk/consultations/open/heathrowconsultation/consultationdocument/
[19] Ibid, paragraph 2.13
[20] Ibid, paragraph 3.130
[21] Ibid, paragraph 3.131
[22] Ibid, Tables 13 and 14, pages 94-95

Contour level (dBA)	Area (km^2) with Cranford Agreement	Change in the area (km^2) without Cranford Agreement	Population with Cranford Agreement (000s)	Change in population without Cranford Agreement (000s)
>66	22.8	+0.2	15.1	+2.6
>69	12.1	-0.2	3.5	+0.6
>72	6.5	0	0.9	-0.1

2.3.4 The Government's view of the key findings was explained in the Consultation Document, as follows:

> *"i. No single option is demonstrably superior in noise terms (i.e. with or without the Cranford Agreement); each scenario has different impacts at different noise levels with some communities experiencing less noise and others more;*[23]
>
> *ii. The population table summary shows that (operating) without the Cranford Agreement removes the highest number of people from the 57 dBA noise contour (10,500) but this is at the expense of increasing the numbers affected at 63 dBA or more (up by 3,300);* [24] *and*
>
> *iii.* ***Overall the ERCD report concludes that ending the Cranford Agreement would result in re-distributing noise exposure more equally around the airport****. Overall populations within the 57 dBA contour are predicted to decrease due to the transfer of arrival operations away from Windsor and onto the more sparsely populated arrivals flight path to the southern runway, although in higher noise exposure areas, populations are predicted to increase slightly."*[25] (emphasis added)

2.3.5 Based on those findings, the Consultation Document explained the following:

> *"We believe that ending the Cranford Agreement would redistribute noise more fairly around the airport when it is operating on easterlies. Our provisional view therefore is that there would be merit in ending the Cranford Agreement, regardless of any other decisions that are taken. However,* ***the main issues that arises from ending the Cranford Agreement is whether it is preferable to benefit large numbers of people by removing them from the 57 dBA Leq contour, at the expense of exposing smaller numbers of people to increased noise at higher levels****."*[26] (emphasis added)

2.3.6 These matters, therefore, were consulted on.

[23] Ibid, paragraph 3.137
[24] Ibid, paragraph 3.137
[25] Ibid, paragraph 3.138
[26] Ibid, paragraph 3.144

2.3.7 Potential air quality impacts of ending the Cranford Agreement were also considered by the Government as explained in the Consultation Document. The text explained that there would be a redistribution of NO2 concentrations around the western end of the Airport by up to 13% at some receptors and by up to 5% at the eastern end of the Airport.[27]

2.3.8 In December 2008, the Government published its Report on Consultation Responses[28]. It noted the following:

"Of the 13,150 respondents (…) 26% support the Government's proposal to end the Cranford Agreement, with 36% wishing for it to continue"[29]

"… 71% (of respondents) wanted the continuation of night-time rotation (of the use of the runways) with (only) 7%..."[30] *disagreeing whilst "…64% want early morning alternation to continue, with 8% disagreeing."*[31]

2.3.9 A summary of responses from some local authorities regarding the ending of Cranford Agreement is provided below:

London Borough of Hillingdon

2.3.10 LB Hillingdon was strongly of the opinion that *"noise impacts in the high noise exposure areas of Longford and Cranford Cross would be so severe that easterly departures from the northern runway must never be permitted."*[32]

2.3.11 LB Hillingdon's response also considered the forecast increase in nitrogen dioxide receptors in Longford that would result from the ending of the Cranford Agreement to be "*unacceptable*".[33]

Mayor of London

2.3.12 The Mayor of London's response set out clearly that *"I disagree with the Government's proposals to end the Cranford Agreement"* [34]. Two particular points were made:

- the Cranford Agreement is helpful in that it prevents the use of mixed mode on both existing runways, so that the increase of 60,000 movements a year which full mixed mode would bring is a significant consideration which needs to be taken into account; and

[27] Ibid, paragraph 3.141
[28] DfT (December 2008). 'Adding Capacity at Heathrow Airport: Report on Consultation Responses'. Available from https://webarchive.nationalarchives.gov.uk/ukgwa/20091204015818/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/responses/responses.pdf
[29] Ibid, paragraph 7.1.9
[30] Ibid, paragraph 2.11.4
[31] Ibid, paragraph 2.12.3
[32] Ibid, paragraph 7.7.9
[33] Ibid, paragraph 6.3.22
[34] Mayor of London (February 2008). Adding Capacity at Heathrow. Mayor of London's response to the consultation, pages 57-58. Available from https://www.london.gov.uk/who-we-are/what-london-assembly-does/london-assembly-publications/response-governments-consultation-adding

- the priority should be to avoid increases in the number of people exposed to the higher noise levels.

London Borough of Hounslow

2.3.13 The London Borough of Hounslow did not agree that the residents of Cranford should suffer increased levels of aircraft noise so that those further away from Heathrow benefit[35].

Royal Borough of Windsor and Maidenhead

2.3.14 The Royal Borough of Windsor and Maidenhead supported the ending of the Cranford Agreement, noting that the operation of the Agreement generates *"probably the most significant impact upon any community around Heathrow Airport"*[36].

Decision

2.3.15 In January 2009, the then labour Government (aware of these views) issued its 'Decisions Following Consultation'[37] report and the Secretary of State Geoff Hoon confirmed *"his intention to end the 'Cranford agreement' (which currently limits easterly departures off the northern runway)."*[38]

2.3.16 The 'Decisions Following Consultation' report confirmed the following policy decisions:

"Ending the Cranford agreement would redistribute noise more fairly around the airport and ***remove around 10,500 people from the 57dBA contour, albeit at the expense of exposing smaller numbers (around 3,300) to higher levels of noise****. In the light of the Secretary of State's decision not to support the implementation of mixed mode and to retain runway alternation, ending the Cranford agreement* ***would also have the benefit of providing periods of respite during the day for all areas affected on both westerly and easterly operations****."*[39] (emphasis added)

"The Secretary of State has therefore decided in the interests of equity to confirm the provisional view set out in the consultation document. Therefore, ***the operating practice which implements the Cranford agreement should end as soon as practicably possible****. He notes that* ***this would also enable runway alternation to be introduced***

[35] The response of the London Borough of Hounslow to the Government's Consultation. Available from https://webarchive.nationalarchives.gov.uk/ukgwa/20120901061650/http://www.hounslow.gov.uk/mobile/adding_capacity_heathrow_response.pdf

[36] RBWM Response: Adding Capacity at Heathrow Airport (DfT November 2007). Available from https://rbwm.moderngov.co.uk/Data/Aviation%20Forum/20080423/Agenda/$meetings_080423_af_adding_capacity_consultation_response.doc.pdf

[37] 'Adding Capacity at Heathrow: Decisions Following Consultation' published by DfT in January 2009. Available from https://webarchive.nationalarchives.gov.uk/ukgwa/20090807182800/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/decisiondocument/

[38] DfT (January 2009). Britain's Transport Infrastructure. 'Adding Capacity at Heathrow: Decisions Following Consultation', paragraph 2. Available from https://webarchive.nationalarchives.gov.uk/ukgwa/20100202173020/http://www.dft.gov.uk/pgr/aviation/heathrowconsultations/heathrowdecision/decisiondocument/

[39] Ibid, paragraph 74.

when the airport is operating on easterlies, giving affected communities predictable periods of relief from airport noise."[40] (emphasis added)

2.3.17 In September 2010, the then Coalition Government published a Ministerial Statement[41] confirming the previous Government's decision, as follows:

"This decision was based on the desire to distribute noise more fairly around the airport and extend the benefits of runway alternation to communities under the flight paths during periods of easterly winds. We support that objective and do not intend to re-open the decision. A number of infrastructure and operational changes by BAA[42] and NATS[43] are needed to implement this decision. The airport operator, BAA, is currently developing proposals for ending the Cranford agreement with a view to confirming the necessary works by the end of this year. I will look to BAA to ensure that proper consideration is given to appropriate mitigation and compensation measures for those likely to be affected by the proposals."[44]

2.4 Need for infrastructure

2.4.1 Although the Cranford Agreement has ended, Heathrow has not yet implemented runway alternation during easterly operations. This has not been implemented because new airfield infrastructure is required to allow regular and scheduled departures on the northern runway in an easterly direction. A legacy of the Cranford Agreement is that the north-west area of the airport has not developed the same extent of taxiways and holding areas as the other runway ends.

2.4.2 The Proposed Development would enable regular and scheduled departures on the northern runway in an easterly direction (Runway 09L) with regular and scheduled arrivals occurring on the southern runway (Runway 09R) from the west, when the wind is blowing from the east.

2.4.3 The Proposed Development would allow the runways to alternate between departures and arrivals on easterly operations (as they do on westerly operations) and Heathrow would alternate at 15:00 each day. If, for instance, on easterly operations the morning sees the southern runway being used for departures and the northern runway being used for arrivals, after 15:00 the northern runway will switch to being used for departures and the southern runway will then be used for arrivals.

2.4.4 As the wind tends to blow from the east only c.30% of the time, departures over Cranford would occur for half the day when the airport is operating on easterlies, i.e. about 15% of the time (and the same for arrivals to the southern runway from the west).

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[40] Ibid, paragraph 75.
[41] The Conservative and Liberal Democratic parties formed a coalition government between 2010 and 2015. Minister of State, Department for Transport, Mrs Theresa Villiers (September 2010). Heathrow Operations. Available from https://hansard.parliament.uk/commons/2010-09-07/debates/10090735000015/HeathrowOperations
[42] British Airports Authority Limited.
[43] National Air Traffic Services.
[44] Heathrow Operations. Available from https://hansard.parliament.uk/commons/2010-09-07/debates/10090735000015/HeathrowOperations

2.4.5 As with westerly alternation, the pattern would be swapped weekly, if easterly winds continued for a sustained period.

2.4.6 These operational changes aim to distribute noise more equitably around the Airport, providing greater predictability and extending the benefits of runway alternation to all communities under the flight paths during easterly operations. Periods of respite would be provided for all affected communities and the communities living west of the northern runway and east of the southern runway would experience respite from what have for decades been constant overflying when the Airport is on easterly operations.

2.4.7 Flight paths and procedures already exist for Heathrow to use[45] [46] the northern runway for departures over Cranford (from Runway 09L) and are published in the UK Aeronautical Information Publication. In practice, the routes are used only exceptionally. For example, in 2020 and 2021, due to the global pandemic and subsequent reduction of operations at Heathrow, the southern runway was closed and these routes were used together with the northern runway as part of Single Runway Operations ('SRO')[47], albeit in reduced operations while demand was suppressed during Covid.

2.4.8 There were 4,732 flights on the northern runway between January 2020 and March 2021.

2.4.9 Otherwise, the northern runway has only been used sporadically for take-offs in an easterly direction. Heathrow's records reveal the following numbers of movements (see **Table 3**):

Table 3 – 09L Departures total movements

09L Departures	
2018	119
2019	126
2020	2733
2021	5282
2022	166
2023	400
2024	374 ytd

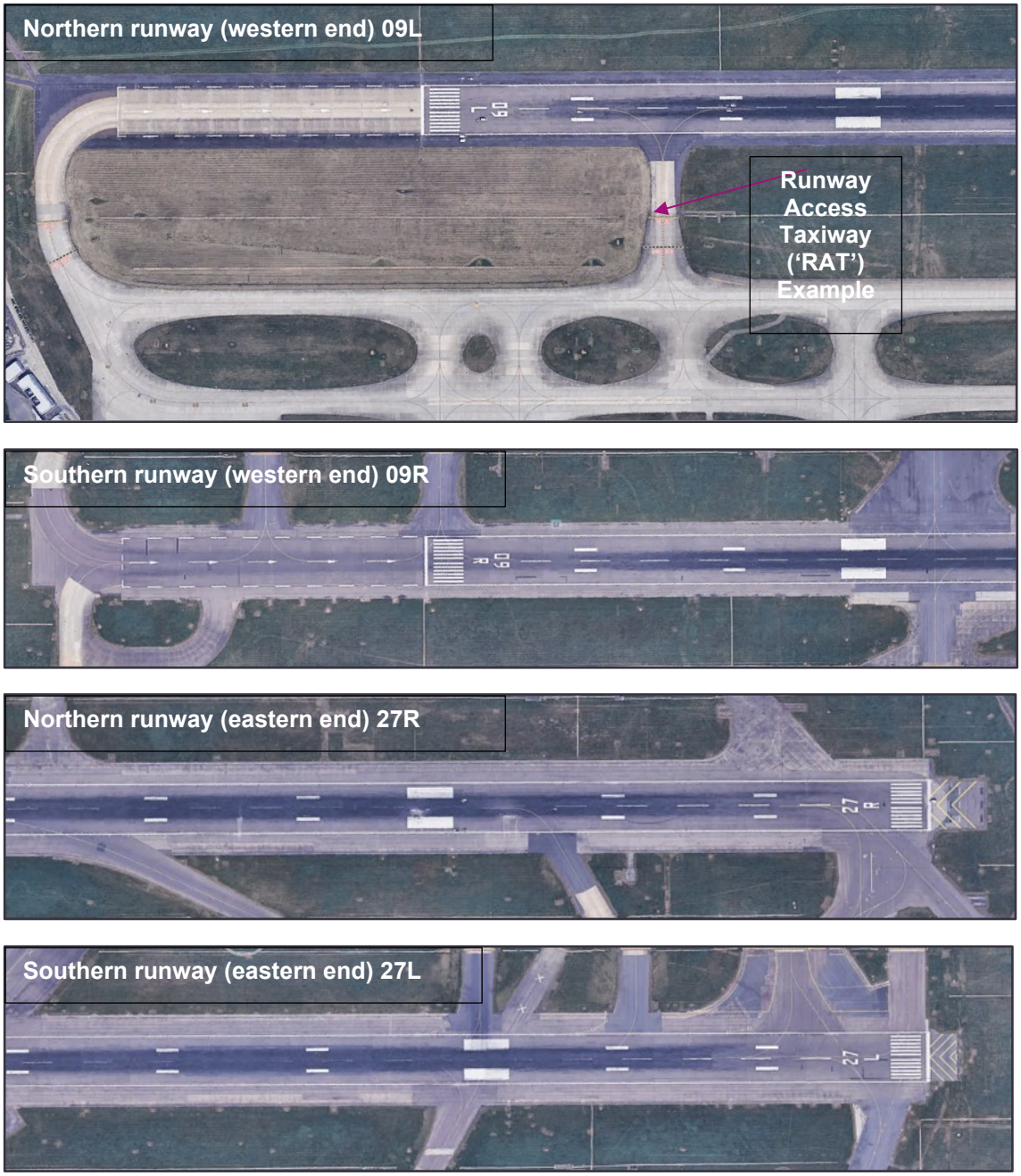
2.4.10 In normal conditions when the Airport is operating close to capacity, the infrastructure serving Runway 09L would be insufficient for full runway alternation during easterly operations.

2.4.11 The key reason for this is that the existing layout of the Airport has been influenced by the Cranford Agreement, such that the taxiway system for allowing easterly departures from the northern runway (Runway 09L) has not developed as it has to serve the other runway ends.

[45] Heathrow departure routes https://www.heathrow.com/company/local-community/noise/operations/departure-flight-paths and arrival routes https://www.heathrow.com/company/local-community/noise/operations/arrival-flight-paths
[46] Heathrow departure routes https://www.heathrow.com/company/local-community/noise/operations/departure-flight-paths and arrival routes https://www.heathrow.com/company/local-community/noise/operations/arrival-flight-paths
[47] For further information https://www.heathrow.com/company/local-community/noise/news/return-to-single-runway-operations

This is particularly well illustrated by comparing the taxiway infrastructure at the western end of the northern runway with that at the western end of the southern runway, and the eastern ends of both runways. There is a lack of infrastructure at the western end of the northern runway, and in particular a lack of Runway Access Taxiways ('RATs')[48], which would facilitate the efficient operation of departures in an easterly direction from the runway (see **Figure 11**).

Figure 11 – Taxiway Infrastructure at each runway end[49]



[48] A Runway Access Taxiway (RAT) facilitates departures by allowing aircraft to access the runway safely and efficiently.
[49] Contains Imagery©2023 Google, Imagery©2023 Bluesky, Getmapping pie, Infoterra Ltd & Bluesky, Maxar Technologies, Map data © 2023, United Kingdom.

2.4.12 A recent incident at the Airport illustrated the insufficiency of the 09L infrastructure. On 18 October 2023 a security alert at Hatton Cross underground station (when the Airport was on easterly operations) caused Heathrow to switch to using the northern runway for departures. The Airport was operating a full schedule and it soon became apparent that 09L was struggling to cope. It is apparent that more taxiway infrastructure is necessary if 09L departures are to be efficiently enabled.

3. THE PROPOSED DEVELOPMENT

3.1 Description of the Development

3.1.1 This section provides a description of the Proposed Development, i.e. details of the proposed new airfield infrastructure along with a noise barrier which is proposed at Longford to reduce the effects from ground noise of aircraft accessing Runway 09L.

3.1.2 The proposed description of development is as follows:

"Enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport including the creation of a new 'hold area' at the western end of the northern runway, the construction of new access and exit taxiways, the construction of an acoustic noise barrier to the south of Longford Village and temporary construction compounds."[50]

Airfield Proposed Infrastructure

3.1.3 The scale of the proposed airfield infrastructure works is relatively limited. It comprises a number of relatively minor alterations to the pavement areas of the airfield around the northern and southern runways. These alterations include additional taxiway infrastructure in the north-west corner of the airfield to provide additional capacity to allow departing aircraft to efficiently access Runway 09L. This will form part of the 09L Runway Hold Area ('RHA').

3.1.4 To offset the increased new taxiway pavement area and to ensure for drainage purposes that the works do not increase the overall extent of impervious area, redundant airfield pavement will be removed and reinstated as grass area nearby the southern runway of the airfield.

3.1.5 Further details of the airfield proposed infrastructure and noise barrier are set out in the **Design and Access Statement** that accompanies this planning application.

3.1.6 The Proposed Development would include:

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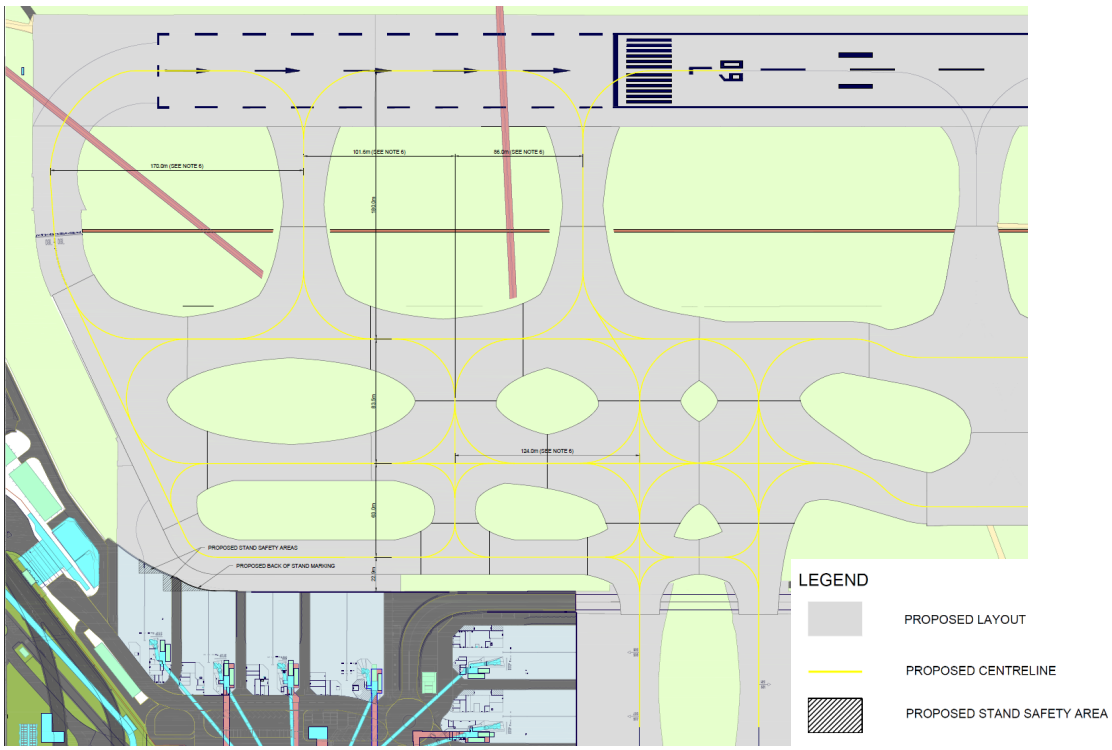
[50] The planning application is not referable to the Greater London Authority ('GLA') because it is not an application of potential strategic importance ('PSI application') as defined by the Town and Country Planning (Mayor of London) Order 2008, i.e. the Proposed Development is not considered to fall within any of the categories set out in the Schedule to that Order. In particular, the Proposed Development does not include a new runway or passenger terminal within paragraph 1 of Category 2C and it would not increase passenger capacity by more than 500,000 passengers per year within paragraph 2 of Category 2C (in fact the Proposed Development would not increase passenger or ATM capacity at all).

Furthermore, the Proposed Development is not likely to 'prejudice the residential use of land' within paragraph 1(b) of Category 3A. No residential land is directly affected and it is worth noting that the examination of a comparable proposal at public inquiry confirmed that no issues arise regarding the ability to use or develop residential land. In the 2017 decision letter, the Secretaries of State agreed with the Inspector (at paragraph 22 of the decision letter) that the effects of the development would be acceptable.
There is also no direction in place from the Secretary of State requiring the application to be referred to the Mayor under Category 4.

Northern Runway

- Three parallel taxiways, parallel to the runway centreline. The two most northern parallel taxiways will primarily be used as part of the runway hold area. The third, most southern parallel taxiway will primarily be used to provide access and egress from the existing aircraft stands on the north side of the T5a terminal (see **Figure 12**).
- A taxiway link connecting the three parallel taxiways.
- Two new Runway Access Taxiways (RATs), which will provide a taxiway route for aircraft departing from Runway 09L. Note these RATs will be used in parallel with the existing RAT at the western most end of the northern runway.
- The new taxiways will vary in width, to accommodate required fillets around taxiway junctions.[51] However, the typical minimum width of the taxiway will be 23 metres.
- A total increase in the operational taxiway pavement area of 2.14 hectares.

Figure 12 – Extract Easterly Alternation Infrastructure Proposed 09L Runway Hold Area General Arrangement [52]

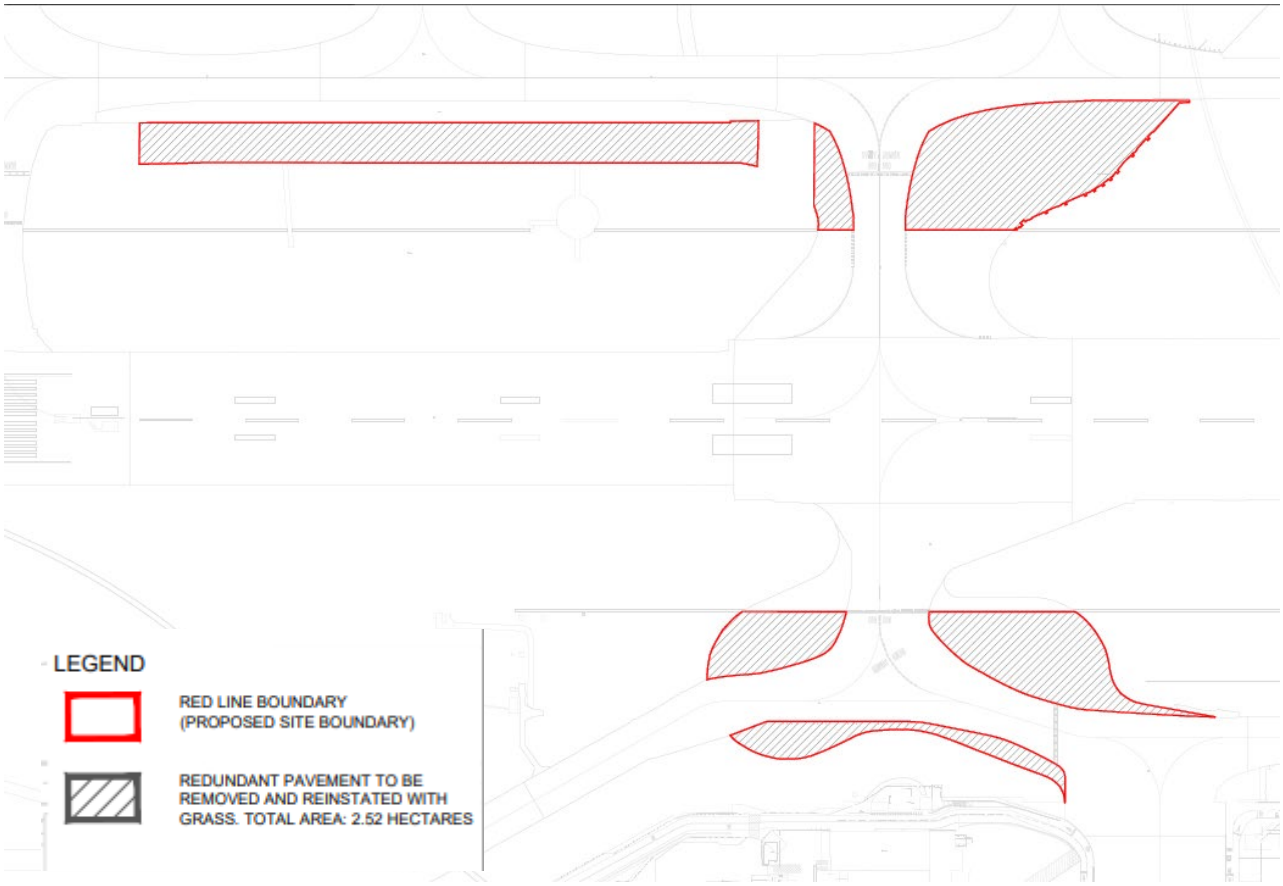


[51] Fillets are provided at the junctions and intersections of taxiways with runways, aprons, and other taxiways to facilitate aircraft movement. When aircraft are manoeuvring through junctions or intersections, the design of the fillets ensures the minimum wheel clearances.
[52] Drawing ref. 19309-00-GA-193-000002 version 1.0 produced by Jacobs (7 August 2024)

Southern Runway

3.1.7 It is proposed to remove an equivalent area of redundant pavement to prevent a net increase in the proportion of paved areas across the Airport which could lead to increased run-off and flood volumes. The redundant airfield pavement removed will be within the same surface water drainage catchment area (see **Figure 13**). The total area of redundant pavement to be removed and reinstated with grass is 2.52 hectares.

Figure 13 – Extract Easterly Alternation Infrastructure Redundant Pavement Site Plan[53]



Noise Barrier

3.1.8 A noise barrier is proposed to the south of the village of Longford. The noise barrier would range between five to seven metres in height and be approximately 781 metres in length. The proposed five metres noise barrier alignment will be in total 235 metres length and the proposed seven metres section will be 546 metres (see **Figure 14**).

3.1.9 For part of its length, it would replace an existing acoustic barrier running alongside Wright Way and a close boarded fence which marks the boundary of the T5 POD car park.

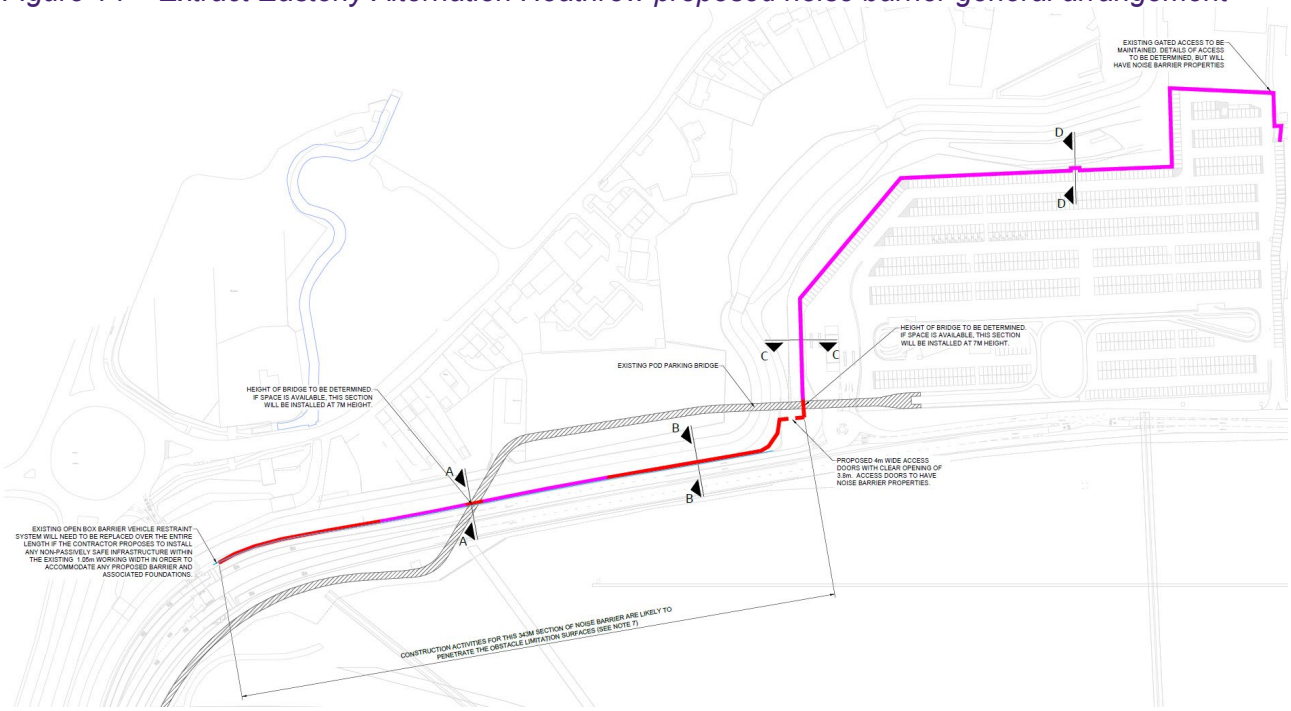
3.1.10 An acoustic security gate will be provided within the noise barrier to allow maintenance access to the Twin Rivers biodiversity site.

[53] Drawing ref. 19309-00-GA-193-000007 version 1.0 produced by Jacobs (7 August 2024)

3.1.11 In relation to materials, it is proposed to use a transparent material for the top two to four metres sections and the use of non-transparent material with external wooden finish in the remaining bottom section. Posts will support the barrier at intervals of approximately three metres. Vertical lines or similar marking will be added to the transparent section to reduce the potential of birds flying into the barrier.

3.1.12 Further details of the noise barrier are set out in the **Design and Access Statement** that accompanies this planning application.

Figure 14 – Extract Easterly Alternation Heathrow proposed noise barrier general arrangement[54]



Use

3.1.13 In operation, the implementation of full runway alternation during easterly operations would enable:

- the introduction of regular and scheduled alternating departures from Runway 09L (the western end of the northern runway) in an easterly direction over Cranford.
- the introduction of regular and scheduled alternating arrivals on Runway 09R (the southern runway) from the west.
- a decrease in the number and times of day that aircraft arrive on Runway 09L from the west; and
- a decrease in the number and time of day that of aircraft depart from Runway 09R in an easterly direction.

[54] Drawing ref. 19219-00-GA-247-000001 version 1.0 produced by Jacobs (7 August 2024)

3.1.14 The change to the use of the runways would modify and redistribute the pattern of aircraft noise. This will lead to a decrease in noise effects for some surrounding communities and an increase in others. However, overall, the Proposed Development will enable a more equitable distribution of noise arising from the aircraft operations of the Airport than currently exists, by providing predictable periods of respite for all communities.

3.2 Airspace

3.2.1 Separately from the Proposed Development, Heathrow is sponsoring an Airspace Change Proposal for the long-term modernisation of the airspace design at and around Heathrow Airport ("the Heathrow airspace modernisation airspace change").[55] This is being progressed under the separate regulatory process for approval of changes to the design of UK airspace administered by the Civil Aviation Authority (CAA). The CAA has the statutory function of deciding whether to approve changes to airspace design and has published guidance on this regulatory process in CAP 1616.[56]

3.2.2 The Heathrow airspace modernisation airspace change was initiated in July 2021 and forms part of a wider programme to redesign and modernise airspace across the South East of England, called the Future Airspace Strategy Implementation (FASI). FASI is a subset of the wider Airspace Modernisation Strategy which is co-sponsored by the Department for Transport and the CAA. The Airspace Modernisation Strategy sets out a strategic plan for modernising UK airspace with the aim of delivering "*quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace*." A single coordinated masterplan for the interdependent Airspace Change Proposals is being created by the Airspace Change Organising Group (ACOG).[57] The masterplan will identify where airspace changes are required to support the delivery of the Airspace Modernisation Strategy.

3.2.3 The Heathrow airspace modernisation airspace change involves the redesign of the airspace around Heathrow based on a two-runway operation, including the introduction of Performance Based Navigation. The Heathrow airspace modernisation airspace change may incorporate changes to flight paths and procedures for Heathrow as a whole, including its operation during easterly operations.

3.2.4 The Heathrow airspace modernisation airspace change is at an early stage of the CAP 1616 process with a multitude of early design options still under consideration. Those airspace design options are not yet mature and will need to undergo further appraisal, environmental assessment and public consultation. Consequently, the outcome of the Heathrow airspace modernisation airspace change and the wider FASI modernisation will not be known during the consideration of the planning application for the Proposed Development. As the proposals for the Heathrow airspace modernisation airspace change develop, they will be subject to their own process of consultation and environmental assessment as detailed in CAP 1616.

[55] Reference ACP-2021-056 – CAA, (2024)., 'Heathrow Airspace Modernisation (FASI South)', Available from https://www.caa.co.uk/our-work/publications/documents/content/cap1616sup/
[56] Reference ACP-2021-056 – CAA, (2024)., 'Heathrow Airspace Modernisation (FASI South)', Available from https://www.caa.co.uk/our-work/publications/documents/content/cap1616sup/
[57] ACOG, (n.d.)., 'Airspace Masterplan' Available at: https://www.acog.aero/airspace-masterplan/masterplan/

3.2.5 Therefore, whilst in the long term the future airspace may change, recognising the significant uncertainties about what the future airspace design might be, the Environmental Impact Assessment is based on the existing airspace design, which is already established for the purposes of easterly operations. The current airspace design provides a good representation of airspace for the purposes of assessing the effects of easterly alternation.

3.2.6 Heathrow will follow the necessary regulatory process to demonstrate the impact of increased use of Runway 09L for departures and Runway 09R for arrivals during easterly alternation within the current notified airspace. In other words, the existing flight paths would not change as a result of easterly alternation, and therefore provide a reliable basis for the environmental assessment which accompanies this planning application.

4. PLANNING POLICY CONTEXT

4.1 Introduction

4.1.1 This Section summarises the national, strategic and local planning policy and guidance which is relevant to assessing the acceptability of the proposals. It also explains the planning designations that affect the site. More detailed policy relating to environmental topics such as noise or air quality is considered in the topic specific chapters later in this Planning Statement.

4.2 UK Aviation policy

4.2.1 Relevant national aviation policy is set out in a range of documents, including the following:

- Aviation Policy Framework (2013);
- Airports National Policy Statement (2018);
- Flightpath to the Future: a Strategic Framework for the Aviation Sector (2022); and
- Overarching Aviation Noise Policy Statement (2023).

4.2.2 National aviation policy is extensive but the elements of it set out below are those most relevant to the proposed change in runway operations, where no increase in the overall number of flights is proposed.

4.2.3 It is important in this context to recognise that the Government's decisions in 2009 and 2010 to end the Cranford Agreement were reached after environmental assessment and after public consultation. In themselves, they are statements of government policy.

4.3 Aviation Policy Framework (2013)

4.3.1 The Aviation Policy Framework ('APF') (2013) sets out the Government's strategy for aviation, the Government's overall objectives for aviation and the policies the Government will use to achieve those objectives.

4.3.2 The APF contains policy which is specific to the subject of this planning application. In relation to the Cranford Agreement, the APF provides:

"To further improve operations and resilience at Heathrow we confirmed the ending of the Cranford agreement. This is an informal but long-standing agreement not to use the northern runway for departures when the wind was in from the east (roughly 30% of the time). This decision needs to be implemented by Heathrow Airport Ltd and a planning application will shortly be submitted for the necessary changes to airport infrastructure. Following implementation, noise will be distributed more fairly around the airport, extending the benefits of runway alternation to communities under the flight paths during periods of

easterly winds, and delivering operational benefits by letting the airport operate consistently whether there are easterly or westerly winds."[58]

4.3.3 The APF also sets out more general policies supporting the growth of aviation but setting conditions for its environmental acceptability. In that context, the APF identifies objectives "*to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions"*[59] and to limit noise and "…*where possible reduce the number of people in the UK significantly affected by aircraft noise"*[60]*.*

4.3.4 It is notable in that context, that the APF attaches *importance* to the achievement of respite for communities affected by noise from aviation:

"3.28 The Government expects airports to make particular efforts to mitigate noise where changes are planned which will adversely impact the noise environment. This would be particularly relevant in the case of proposals for new airport capacity, changes to operational procedures or where an increase in movements is expected which will have a noticeable impact on local communities. In these cases, it would be appropriate to consider new and innovative approaches such as noise envelopes or provision of respite for communities already affected".

4.3.5 The APF also contains specific policies for noise *insulation*, and these are examined directly later in this Statement.

4.4 Airports National Policy Statement (2018)

4.4.1 The Airports National Policy Statement ('ANPS')[61] was designated by the Secretary of State for Transport on 26 June 2018, confirming the need for additional airport capacity in the South East of England and the Government's support in principle for a third runway at Heathrow. Whilst it provides specific guidance for any application for a new Northwest Runway development at Heathrow, it also is relevant to applications related to other airport infrastructure in London and the South East of England.

4.4.2 The ANPS contains specific policies for environmental issues such as noise, carbon and air quality and they are examined later in this Statement.

4.4.3 In principle, the ANPS sets out at length the importance of the aviation sector to the UK economy but also highlights the severe lack of capacity in the sector which is causing not only lost opportunities but placing increasing operational strain on UK airports to the detriment of their performance, customer service and fares, including at Heathrow Airport, the busiest two runway airport in the world. The ANPS recognises that operating existing capacity at its limits means there will be little resilience to unforeseen disruptions, leading

[58] DfT, Aviation Policy Framework (APF) (2013) Paragraph 1.63. Available from https://www.gov.uk/government/publications/aviation-policy-framework
[59] APF Paragraph 12.
[60] APF Paragraph 17.
[61] DfT (June 2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Available from https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

to delays. Projects such as the works proposed in this application to enhance the efficiency and resilience of airport operations on runway 09L help to address that concern.

4.4.4 The importance of offering respite from continuous operations to communities is stressed in the ANPS. In section 3, the ANPS explains that the ability to achieve respite through the use of alternate runways was one of the important factors in choosing its preferred scheme for the new runway and in Section 5 the ANPS emphasises the importance of respite in the planning of a North West runway, in terms which are clearly also relevant in this case:

"5.55 The Government recognises that aircraft noise is a significant concern to communities affected and that, as a result of additional runway capacity, noise- related action will need to be taken. Such action should strike a fair balance between the negative impacts of noise and positive impacts of flights.

5.56 The Government also recognises that predictable periods of relief from aircraft noise (known as respite) are important for communities affected".

4.4.5 Equally, in any proposals coming forward, the ANPS requires that *"the applicant should put forward plans for a runway alternation scheme that provides communities affected with predictable periods of respite"* (paragraph 5.61).

4.5 Flightpath to the Future: a Strategic Framework for the Aviation Sector (2022)

4.5.1 Flightpath to the Future: a Strategic Framework for the Aviation Sector was published by the DfT on 26 May 2022 and sets out a medium-term strategic framework for the UK aviation sector over the next 10 years. It is a 10-point plan focused on providing clarity on the key priorities for the sector and how the government and industry will work together to deliver them. The Strategic Framework is clear on the importance of the aviation sector to the UK economy.

4.5.2 Key priorities include efficiency and resilience – particularly in the light of lessons learned through the pandemic:

"Learning lessons from the pandemic and building resilience as the sector recovers, it is essential we think about what lessons can be learned from the pandemic. This is important both for ensuring a return to increased passenger demand and growth in the sector, as well as for preparedness to minimise disruption for future potential contingencies."

4.5.3 It is interesting in this context that the Aviation Policy Framework (see above) recognises that providing the infrastructure to enable easterly alternation would "*further improve operations and resilience at Heathrow."*

4.5.4 One lesson learned at Heathrow from experience in the pandemic is that the infrastructure on runway 09L is inadequate for it to deliver efficient airport operations if either the southern runway is temporarily out of action or if the northern runway is to be called upon for routine operations during easterly operations.

4.6 Overarching Aviation Noise Policy Statement (2023)

4.6.1 In relation to aviation noise policy, in March 2023 the Department for Transport ('DfT') published its Overarching Aviation Noise Policy Statement[62] ('OANPS'), which sets out the Government's aim in relation to the next steps on noise aviation policy. The policy paper frames the night-time noise abatement objective consultation[63] and aims to provide clarity for airports and their stakeholders when preparing or responding to noise action plan consultations.

4.6.2 The OANPS makes clear the Government's overall policy approach on aviation noise is "***to balance the economic and consumer benefits of aviation against their social and health implications*** *in line with the International Civil Aviation Organisation's Balanced Approach to Aircraft Noise Management."* This should take into account the local and national context of both passenger and freight operations, and (where relevant) recognise the additional health impacts of night flights.

4.6.3 The Statement is clear that *"the impact of aviation noise must be mitigated as much as is practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise."*

4.6.4 However, the Statement also makes clear that this is but one of the Government's objectives and that it must be balanced against others:

> *"An overall reduction in total adverse effects is desirable, but in the context of sustainable growth an increase in total adverse effects may be offset by an increase in economic and consumer benefits. In circumstances where there is an increase in total adverse effects, "limit" would mean to mitigate and minimise adverse effects, in line with the Noise Policy Statement for England."* [64]

4.7 Summary

4.7.1 The application proposal is strongly supported in principle by up to date Government policy. In fact, proposals that give effect to statements of government policy ending of the Cranford Agreement are directly supported in the APF, whilst other up to date policies support the resilience which the proposals would bring and particularly emphasise the importance of bringing respite to airport communities.

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[62] DfT (March 2023). Policy Paper Overarching Aviation Noise Policy. Available from https://www.gov.uk/government/publications/aviation-noise-policy-statement/overarching-aviation-noise-policy#:~:text=The%20impact%20of%20aviation%20noise,of%20life%20from%20aviation%20noise.

[63] The consultation was undertaking between 27 March 2023 and 9 May 2023. More information available https://www.gov.uk/government/consultations/night-time-noise-abatement-objectives-for-the-designated-airports/night-time-noise-abatement-objectives-for-the-designated-airports-from-october-2025#:~:text=The%20noise%20abatement%20objective%20for%20the%20current%20regime%20(2022%2D2025,existing%20benefits%20of%20night%20flights.

[64] The Noise Policy Statement for England (NPSE) 2010 places noise policy firmly in the context of government policies for sustainable development. As paragraph 2.18 explains: *This should avoid noise being treated in isolation in any particular situation, i.e. not focussing solely on the noise impact without taking into account other related factors.*

4.8 National and local planning policy and guidance

National Planning Policy Framework (December 2023)

4.8.1 Policies in the NPPF are necessarily more general, and less specific to airports, and the importance of respite etc. Topic specific policies for noise, air quality etc are examined later in this Statement.

4.9 Local Planning Policy

4.9.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 states that planning applications must be determined in accordance with the development plan unless material considerations indicate otherwise. The adopted development plan for the purposes of this application comprises:

- The London Plan – The Spatial Development Strategy for Greater London (adopted March 2021).[65]
- The Hillingdon Local Plan: Part 1: Strategic Policies (adopted November 2012), which include 'saved' policies of the Hillingdon Unitary Development Plan (adopted in September 2007).[66]
- The Hillingdon Local Plan Part 2: Development Management Policies (adopted January 2020).[67]
- The Hillingdon Local Plan Part 2: Site Allocations and Designations (adopted January 2020).[68]
- The Hillingdon Local Plan Part 2: Policies Map (adopted January 2020).[69]

4.9.2 LB Hillingdon is preparing a partial review of the current Local Plan to combine the two parts, which will cover the period 2023-2038. The emerging new Local Plan is at an early stage of preparation. As part of the Local Plan review evidence gathering, LB Hillingdon launched a Regulation 18 consultation in April 2024 entitled 'call for views'. This marks an early stage in the plan preparation and the emerging plan carries no weight at this stage.

[65] Greater London Authority (2021). The London Plan 2021. Available from https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf
[66] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 – Strategic Policies (adoption version). Available from https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf
[67] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 – Development Management Policies (adopted version) 16 January 2020. Available from https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570
[68] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 – Site Allocations and Designations (adoption version) 16 January 2020. Available from https://www.hillingdon.gov.uk/media/3085/Hillingdon-Local-Plan-Part-2-Site-Allocations-and-Designations/pdf/pmLPP2_Site_Allocations_and_Designations_-_ADOPTED_VERSION_JAN_2020.pdf?m=1598370680123
[69] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 – Policies Map (adoption version). Available from https://www.hillingdon.gov.uk/media/3086/View-the-policies-map/pdf/q7LPP2_Policies_Map_-_ADOPTION_VERSION.pdf?m=1598370744580

4.9.3 In terms of planning policies, none apply specifically to the easterly alternation infrastructure project but the most relevant are highlighted below.

London Plan (2021)

4.9.4 The 2021 London Plan introduced Policy T8, which establishes a strategic approach to aviation within London, including at Heathrow Airport.

4.9.5 Policy T8 (Aviation) part B states *"the **environmental and health impacts of aviation must be fully acknowledged** and **aviation-related development proposals should include mitigation measures that fully meet their external and environmental costs, particularly in respect of noise, air quality and climate change.** Any airport expansion scheme must be appropriately assessed and if required demonstrate that there is an overriding public interest or no suitable alternative solution with fewer environmental impacts."* (our emphasis)

4.9.6 The policy continues in part E that *"**development proposals that would lead to changes in airport operations or air traffic movements must take full account of their environmental impacts and the views of affected** communities. Any changes to London's airspace must treat London's major airports equitably when airspace is allocated."* (our emphasis)

4.9.7 Part F of the policy sets out that *"**development proposals should make better use of existing** airport **capacity,** underpinned by upgraded passenger and freight facilities and improved surface access links, in particular rail."* (our emphasis)

4.9.8 Part G of the policy requires that *"airport operators should work closely with airlines, Transport for London and other transport providers and stakeholders to ensure straightforward, seamless and integrated connectivity and to improve facilities and inclusive access. They should also increase the proportion of journeys passengers and staff make by sustainable means such as rail, bus and cycling, and minimise the environmental impacts of airport servicing and onward freight transport."*

4.9.9 The Policy states in part H that *"development proposals relating to general and business aviation activity should only be supported if they would not lead to additional environmental harm or negative effects on health, nor impact on scheduled flight operations. Any significant shift in the mix of operations using an airport – for example, the introduction of scheduled flights at airports not generally offering such flights – should be refused."* Part H does not apply to this application which is not concerned with general or business aviation.

4.9.10 The London Plan places a strong emphasis on limiting and mitigating environmental effects and on ensuring that there are no suitable alternatives with less environmental effects. In this case, there are no significant environmental effects arising from the physical works themselves and any significant effects arising from easterly alternation are a function of the Government decision to end the Cranford Agreement. Those effects are assessed in the Environmental Statement and mitigation proposals are tested against planning policies in subsequent sections of this Statement.

4.9.11 In this context, London Plan Policy D13 may be relevant (the Agent of Change policy). The policy principle places the responsibility for mitigating impacts from existing noise and other nuisance-generating activities or uses on the proposed new noise-sensitive development.

In other words, new development proposed in locations affected by existing noise from Heathrow has a responsibility to take account of the noise environment and design buildings and uses to mitigate the noise. his could reasonably extend to buildings or uses developed or planned since 2009 when the Government announced the end of the Cranford Agreement. Development since that time which may be affected by easterly alternation should have been designed to take it into account.

Hillingdon Local Plan Part 1: Strategic Policies (adopted November 2012)

4.9.12 The Local Plan is now quite dated and subject to review. The principles of its approach to Heathrow Airport, however, are clear. The economic importance of the Airport to the borough is fully recognised and policies seek to harness the Airport's economic strength:

"Heathrow is a crucial influence in attracting new investment to the area and Hillingdon Local Plan: Part 1 - Strategic Policies will ensure that land within the airport boundary continues to be protected for activity directly related to the airport". (page 25).

4.9.13 However, the Local Plan recognises that Heathrow generates environmental issues: particularly noise and air quality in the south of the borough. A balanced approach is proposed, perhaps best summed up in the Plan's Vision, which provides:

"Hillingdon has continued to prosper from the presence of Heathrow: *The economic benefits of Heathrow Airport are being harnessed by local people through access to jobs and links to training to create greater prosperity, whilst securing improved local air quality, reductions in noise and other benefits to the environment for the local communities."* (page 22)

4.9.14 The Local Plan predates the APF and the ANPS, so that its aviation policy framework is not up to date. It does not contain policies directly relevant to easterly alternation. In describing the current Airport operation, however, it does recognise the benefits of respite:

"3.6 Currently, aircraft at Heathrow are only permitted to take off from one runway and land on the other except in certain circumstances. This action helps to regulate noise impacts on the surrounding area."

4.9.15 Appendix 2 of the Hillingdon Local Plan Part 1: Strategic Policies helpfully identifies the list of schemes that are considered within the LB Hillingdon's Infrastructure Schedule. The infrastructure schedule includes the 'Enabling works for implementation of full runway alternation (ending Cranford agreement)' as a project to be delivered by British Airports Authority Limited ('BAA') (Heathrow's predecessor). The infrastructure schedule sets out as justification the need for the scheme to provide 'operational reliability' and, as requirements, the provision of additional taxiways and associated mitigation.[70.]

Hillingdon Local Plan Part 2: Development Management Policies (adopted January 2020)

4.9.16 The Part 2 Local Plan mirrors the approach of Part 1 in recognising the importance and benefits of Heathrow, at the same time as recognising that it does have local environmental effects. The Airport is subject to two specific policies:

[70] Hillingdon Council, (2012)., 'Local Plan: Part 1 – Strategic Policies' Page 171.

4.9.17 **Policy DMAV 1** (Safe operation of airports) supports the continued safe operation of Heathrow Airport. Policy supporting text *paragraph* 8.46 clearly notes that *"measures are in place to tackle noise, pollution emissions and congestion".* Paragraph 8.46 explains that:

"Additionally, the 2004 planning permission for Terminal 5[71] *included a number of conditions managing Heathrow's operation. Aircraft movements are capped at 480,000 per year, noise capped at an area of 145km2 for noise contour level 57dB(A) Leq 16 hr (0700-2300) and a cap of 42,000 car parking spaces with no more than 17,500 available to employees. At a borough level, the Council implements its Air Quality Action Plan and is carrying out cycling improvements in the Uxbridge-Heathrow area as part of its Biking Borough programme. Additionally, BAA has published its Heathrow Air Quality Strategy 2011-2020."*

4.9.18 **Policy DMAV 2** (Heathrow Airport) sets out that proposals *"within the Heathrow Airport boundary will only be supported where:*

i) they relate directly to airport related use or development;

ii) there is no detrimental impact to the safe and efficient operation of local and strategic transport networks;

iii) they comply with Policy DMEI 14: Air Quality;

iv) there are no other significant adverse environmental impacts; where relevant, an environmental impact and/or transport assessment will be required with appropriate identification of mitigation measures; and

v) they comply with all other relevant policies of the Local Plan."

4.9.19 Importantly, policy supporting text paragraph 8.48 explains that local plan policies *"aim to ensure that development related to the current operation of the airport is managed to reduce environmental impacts".* In addition, the proposals for development should, where required, address traffic, water cycle, air quality and noise impacts and identify mitigation measures to be implemented and an environmental impact assessment may be required. Policy supporting text also explains that mitigation measures may be implemented through planning obligations to address issues that cannot be resolved by conditions.[72]

4.9.20 The purpose of the proposed development is directly consistent with these policy objectives – i.e. to manage the operation of the airport to reduce its environmental effects by more equitably distributing noise between surrounding communities. Questions of mitigation are considered in subsequent sections of this Statement. There the analysis shows that the Proposed Development would generate significant environmental benefits, whilst adverse effects are appropriately mitigated.

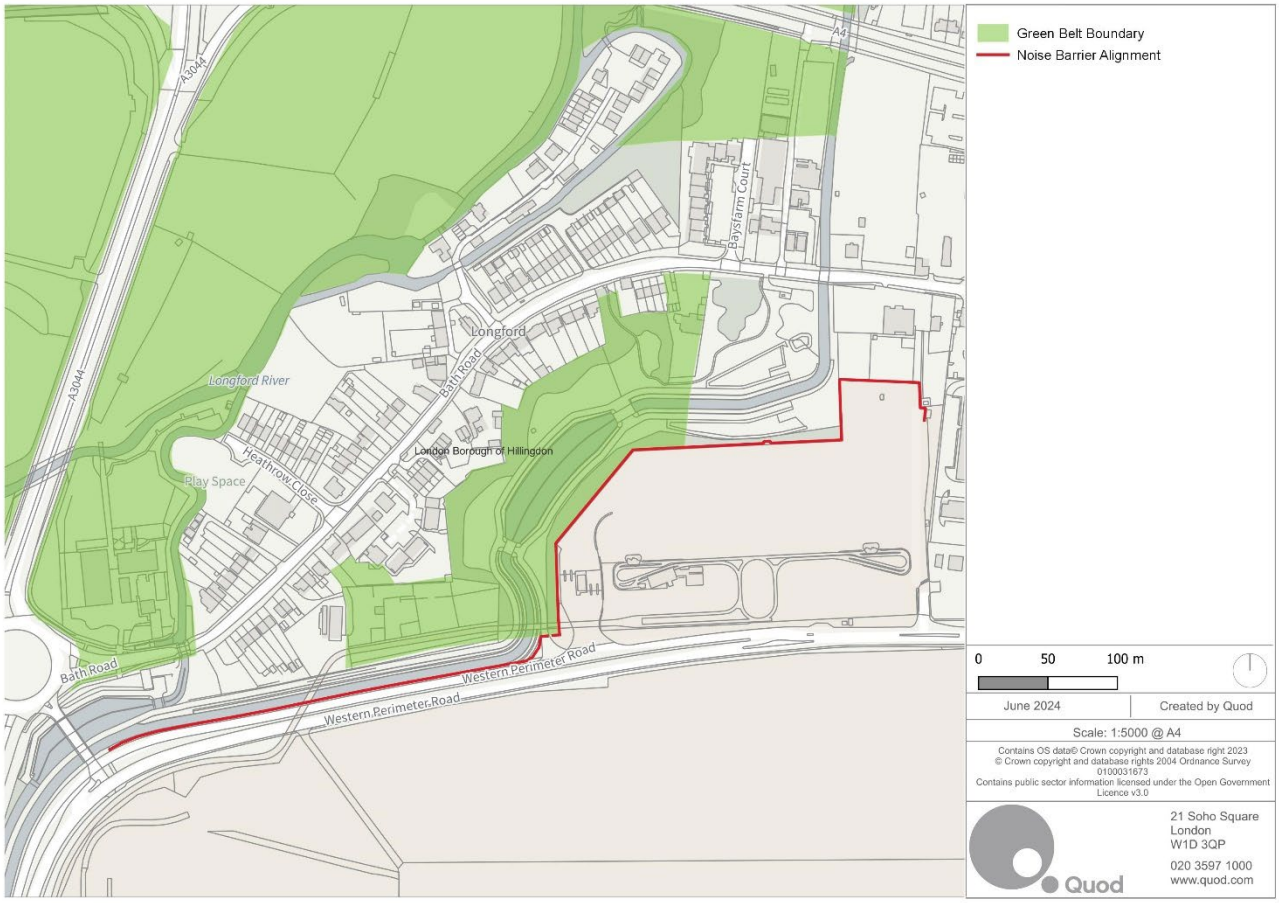
[71] LB Hillingdon Local Plan: Part 2 – Development Management Policies footnote 23 indicates Planning Application Ref. 47853/APP/2002/1882
[72] LB Hillingdon Local Plan: Part 2 – Development Management Policies paragraph 8.49.

The Hillingdon Local Plan Part 2: Site Allocations and Designations (adopted January 2020)

4.9.21 The Local Plan is significant in the context of the Proposed Development because it amended the Green Belt boundary in the vicinity of the POD car park. Prior to the adoption of the Part 2 Plan, the car park itself was washed over as part of the Green Belt.

4.9.22 The now adopted Green Belt boundary is shown in **Figure 15** (and **Appendix 2**).

Figure 15 – Map showing Green Belt boundary at Longford



4.9.23 The Green Belt boundary has changed in the immediate vicinity of the T5 POD car park and the change was justified as follows: the area previously in the Green Belt was *"separated from the adjoining main Green Belt area in the Colne Valley by the Duke of Northumberland's River. Longford Green has been fully developed and is now occupied by the Heathrow Business Class Car Park. As such, both sites do not meet any of the purposes of including in the Green Belt as identified in the NPPF at paragraph 80. They do not:*

- *check the unrestricted sprawl of large built-up areas;*
- *prevent neighbouring towns merging into one another;*
- *assist in safeguarding the countryside from encroachment; or*

- *preserve the setting and special character of an historic town.*

The adjoining "Island site" to the west forms a more logical and definable Green Belt Boundary in Longford." [73]

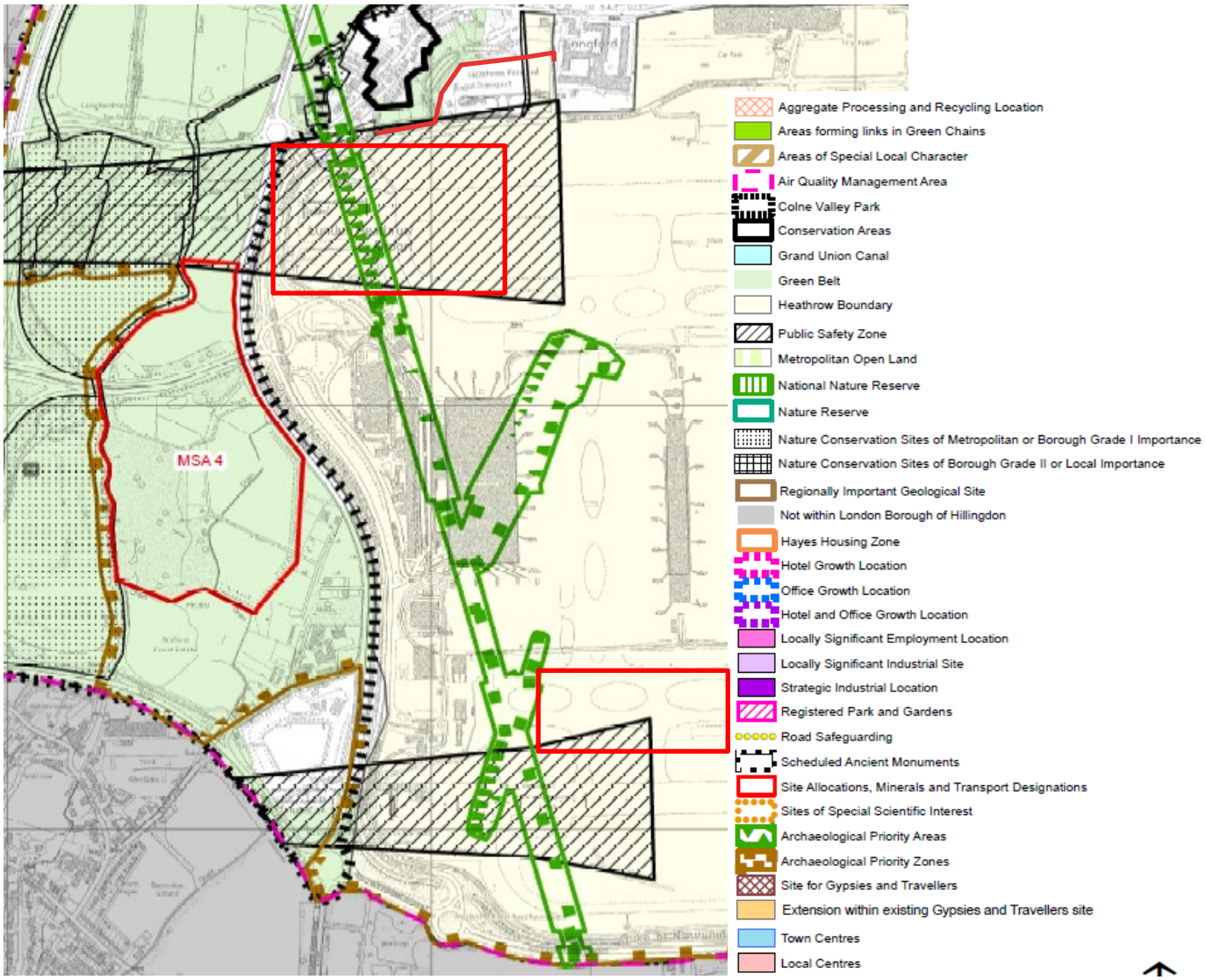
4.9.24 This has a direct relevance to the application proposals. At the time of the previous application in 2013, the location of the proposed noise barrier near Longford was within the Green Belt. As a result, it was necessary to show that there were very special circumstances justifying its development. Whilst these were ultimately accepted by the Secretaries of State, the issue formed one of the reasons why LB Hillingdon refused the application, and an appeal was necessary. **Appendix 2** to this Planning Statement presents an exercise undertaken by Heathrow to show the alignment proposed for the noise barrier with the precise Green Belt boundary. It demonstrates that the barrier does not fall within the Green Belt and, therefore, Green Belt policies are not engaged.

The Hillingdon Local Plan Part 2: Policies Map Adoption Version (January 2020)

4.9.25 The Airport boundary is shown within LB Hillingdon Local Plan Part 2 – Policies Map Adoption Version (January 2020) (see **Figure 16**).

[73] Hillingdon Council, (2020). The LB Hillingdon Local Plan Part 2: Site Allocations and Designations. Available from https://www.hillingdon.gov.uk/media/7661/The-Local-Plan--Part-2---Site-Allocations-and-Designations-2020/pdf/ceThe_Local_Plan__Part_2_-_Site_Allocations_and_Designations_2020.PDF?m=1637760242663

Figure 16 – Extract LB Hillingdon Local Plan Part 2 – Policies Map Adoption Version (January 2020)[74]



4.9.26 The vicinity of the Proposed Development is shown as affected by the Heathrow Airport Public Safety Zone (see **Figure 16**).

4.9.27 A Nature Conservation Site of Metropolitan or Borough Grade I Importance intersects the noise barrier component of the Proposed Development (see **Figure 16**).

4.9.28 An Archaeological Priority Area also intersects the site's red line boundary (see **Figure 16**). Policy DMHB 7 (Archaeological Priority Areas and Archaeological Priority Zones) ensures that *"sites of archaeological interest within or, where appropriate, outside, designated areas are not disturbed. If that cannot be avoided, satisfactory measures must be taken to mitigate the impacts of the proposals through archaeological fieldwork to investigate and record*

[74] With indicative red line boundary

remains in advance of development works. This should include proposals for the recording, archiving and reporting of any archaeological finds."

4.9.29 It is agreed that no significant issues arise in this respect. As the LB Hillingdon's Scoping Opinion (February 2024) confirms:

"The impacts on the historic environment are considered likely to be minimal as concluded within the previous assessment:

On balance the effect of construction on the potential buried archaeological resource is not considered to be significant."

4.9.30 The site's red line boundary is predominantly located within Flood Zone 1.

4.9.31 Policy EM6 (Flood Risk Management) requires new development to be directed away from Flood Zones 2 and 3 in accordance with the principles of the NPPF and that all development across the borough should use SuDS unless demonstrated that it is not viable.

4.9.32 The Duke of Northumberland's River is located adjacent to the proposed noise barrier. Policy DMEI 8 (Waterside Development) sets out that development on sites that adjoin or include a watercourse should have regard to the relevant provisions of the Thames River Basin Management Plan and any other relevant Catchment Management Plans. An easement is required from the bank of the river and has been proposed in this case. Policy DMEI 9 (Management of flood risk) states that developments in Flood Zones 2 and 3 should take account of flood risk and be supported by a **Flood Risk Assessment** ('FRA').

4.9.33 Drainage details were addressed by condition in the 2013 application and the same solution is proposed with this application.

4.10 Policy Summary

4.10.1 Unusually, the application benefits from direct, scheme specific government policy support to bring a fairer distribution of noise to the airport's communities. The ending of the Cranford Agreement and the need for a planning application to give effect to that was a government policy decision informed by environmental assessment and by public consultation. That government decision was reconfirmed in 2010 and it is directly endorsed in the Aviation Policy Framework 2013, which remains up to date government policy.

4.10.2 From a London Plan policy perspective, whilst there is no reference to easterly alternation in the London Plan, it is recognised that Heathrow Airport is a major key growth catalyst for the region, generating employment and supporting other businesses. Therefore, policy is supportive of development proposals which make better use of existing airport capacity taking into full account the environmental impacts and the views of surrounding communities.

4.10.3 Policies support making best use and enhancing the resilience of airport infrastructure and managing operations at the airport to reduce environmental effects on communities, which is the purpose of this application.

4.10.4 Policies emphasise the importance of limiting and mitigating environmental effects through airport operations, although policy would also suggest that new development has an

obligation to take account of noise arising from Heathrow. Specific effects are considered in subsequent sections of this Planning Statement and mitigation is put forward where necessary to address significant environmental effects. It should be noted in this context, however, that the principle of the application proposals has been directly identified and advocated by the Government because of the net social and environmental benefits that it brings. In this respect, the Proposed Development is consistent with national and local policy objectives.

4.10.5 National aviation policy recognises the importance of providing predictable periods of relief or respite for communities affected by aircraft noise and the Government's decisions to end the Cranford Agreement are themselves statements of government policy with a very direct application in this case.

4.10.6 The application does not lie within the Green Belt and no significant site specific allocations are impacted by the proposals.

4.10.7 At a local level, the proposed airfield infrastructure falls within the Heathrow Airport boundaries where airport-related development is fully supported in line with the aspirations to make the best use of the existing airport infrastructure. The 'Enabling works for implementation of full runway alternation (ending Cranford agreement)' forms part of the list of schemes that are considered within the LB Hillingdon's Infrastructure Schedule of the Local Plan.

5. THE 2017 DECISION

5.1 Introduction

5.1.1 This section provides an overview of the '2017 Decision' and relevant matters which arose during the determination of the planning application submitted to the LB Hillingdon for works to enable easterly alternation in 2013. That application was refused but the decision was successfully appealed to the Secretaries of State for Communities & Local Government and for Transport and planning permission granted in 2017, following a public inquiry.

5.1.2 The lessons learned from a very similar planning exercise are set out to help inform the consideration of this planning application. It is clearly material that all of the principles raised by this application have already been examined through an independent inquiry and the proposals supported by the Secretaries of State.

5.2 Background

5.2.1 The 2013 Application[75] was submitted to the LB Hillingdon by Heathrow on 17 May 2013. The full description of the development was as follows:

"Enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport including the creation of a new 'hold area' at the western end of the northern runway, the construction of new access and exit taxiways, and the construction of a 5 metre high acoustic noise barrier to the south of Longford Village."

Information submitted with the 2013 Application

5.2.2 The information submitted along with the 2013 Application was broadly comparable to that submitted with this application. Detailed drawings of the proposed ground works and of a noise barrier proposed at Longford were submitted together with a Planning Statement ('PS'), an Environmental Statement ('ES') and technical appendices and an ES non-technical summary. The planning application was also supported by a Health and Equalities Impact Assessment. The proposals included airfield infrastructure works and the construction of a five metre high noise barrier. The noise barrier was to be located to the south of Longford Village on the same alignment as that proposed in this application (albeit, following local consultation, the current proposals differ in height and extend further to the east, around the north of the T5 POD car park) and was similarly intended to attenuate ground noise impacts in Longford.

[75] LBH planning application ref. 41573/APP/2013/1288. Available from https://planning.hillingdon.gov.uk/OcellaWeb/planningDetails?reference=41573/APP/2013/1288&from=planningSearch

Airfield Infrastructure

5.2.3 The airfield infrastructure proposed in the 2013 application was similar in principle to that proposed in this application. The principal components are shown in **Figure 17** and **Figure 18** below and comprised:

- Creation of a 'Hold Area' at the western end of Runway 09L comprising:
- The construction of a new Runway Access Taxiway ('RAT') (A13E) between Alpha Taxiway and Runway 09L, situated between the existing A13 and A12 RATs, with a total area of 6,198m^2;
- Construction of a new connector taxiway linking the existing Alpha and Bravo Taxiways situated immediately to the south of the proposed new A13E RAT, with a total area of 5646m^2, to provide greater flexibility for re-sequencing aircraft and to reduce the conflict with the Terminal 5 apron as well as improving ground movement flows and access to the airfield (i.e. Link 59);
- In addition, two small areas of additional pavement were required to enable A380 aircraft to access and exit the runway to meet the safety requirements of the CAA with a total area of 394m^2;
- Existing concrete break out areas with a total area of 12,564m^2 (see **Figure 18**).
- (Breaking out equivalent areas of existing concrete was required to ensure that the overall area of impervious surfacing did not increase).

Figure 17 – Extract of Rapid Access Taxiway A13E and new connector taxiway Link 59 Proposed Site Layout (drawing ref. 10000-XX-GA-100-000192, March 2013)

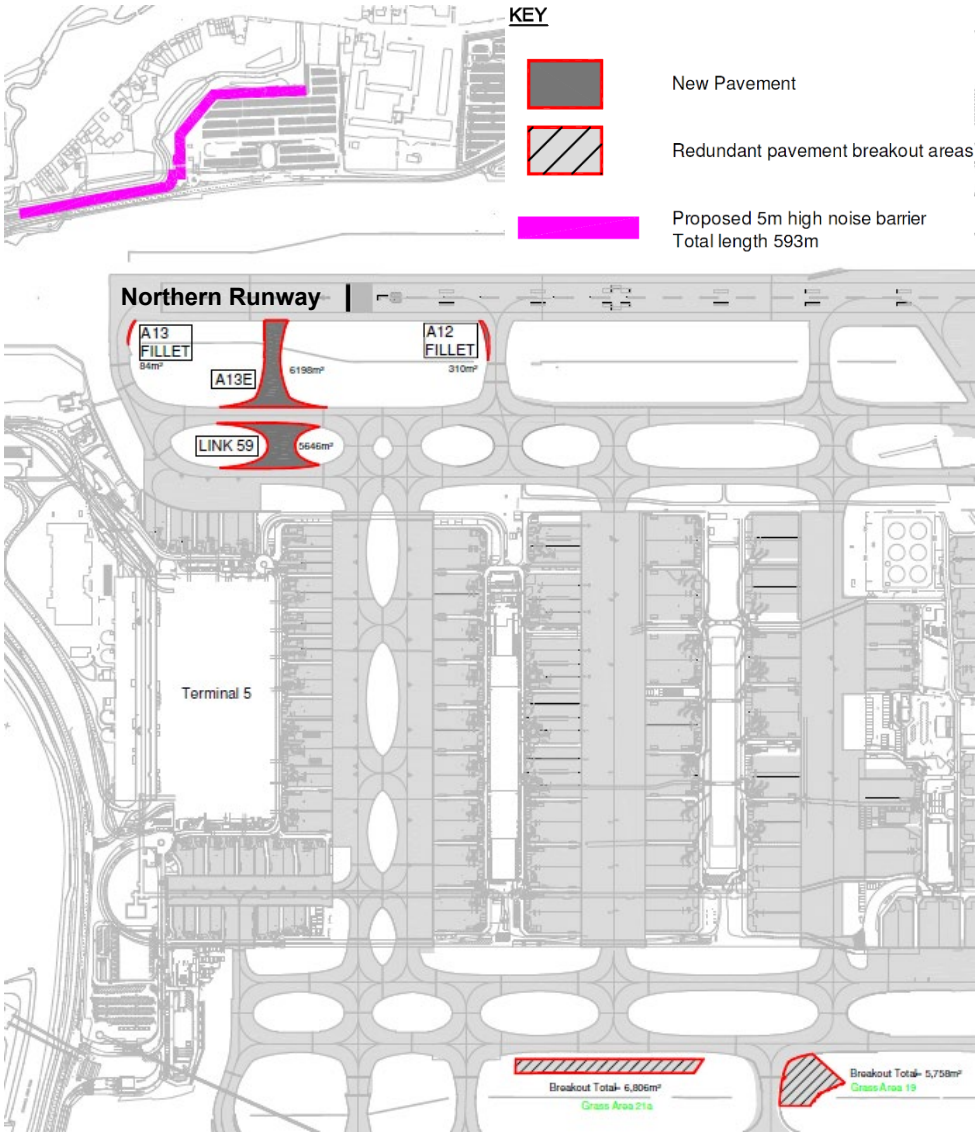
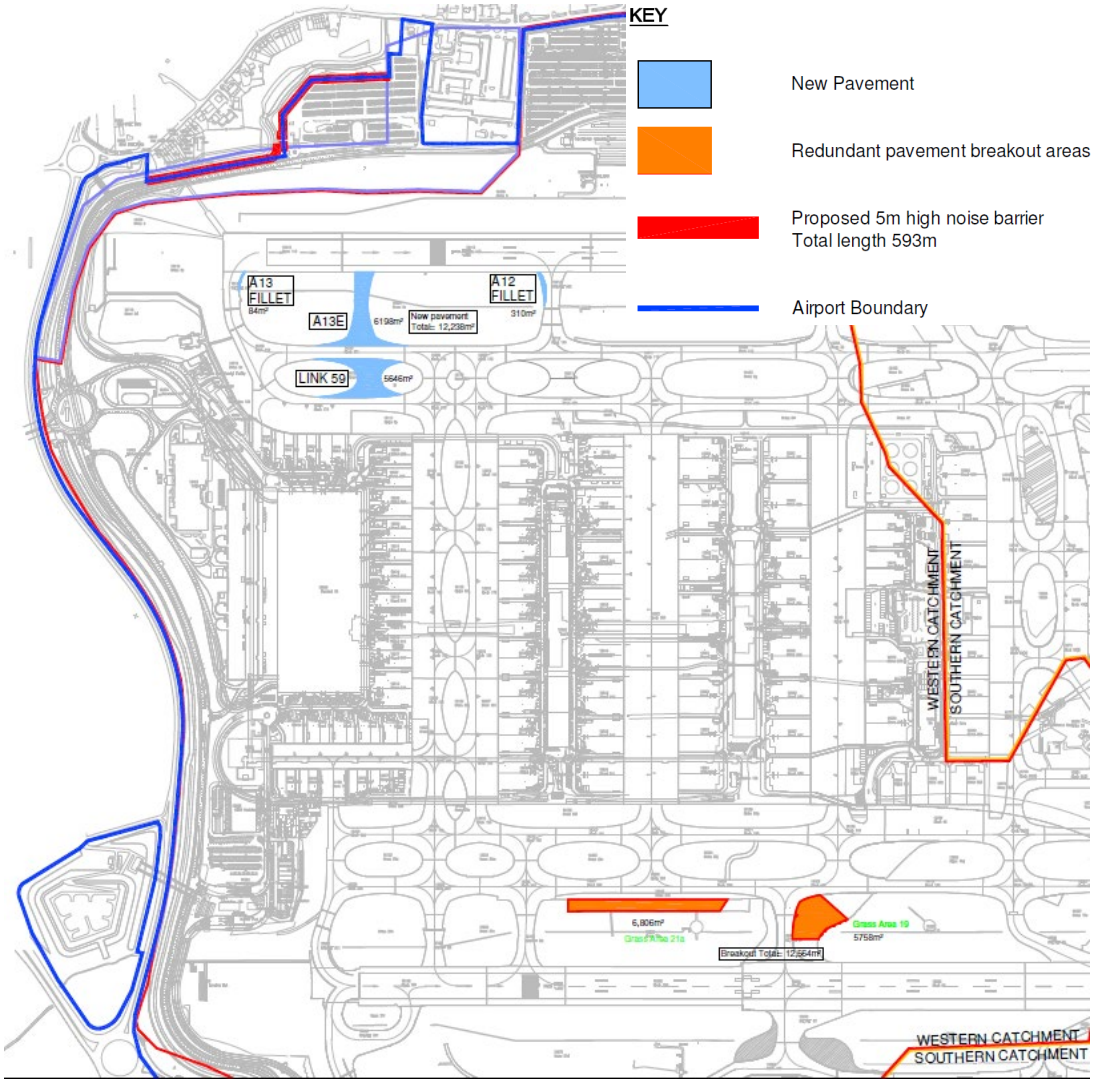


Figure 18 – Extract of Rapid Access Taxiway A13E and new connector taxiway Link 59 New Pavement & Breakout Areas (drawing ref. 10000-XX-GA-100-000193, March 2013)



5.2.4 The purpose of the infrastructure was to provide more access capacity to the western end of the northern runway.

5.2.5 The proposed airfield infrastructure was also supplemented at around the same time by the construction of additional Rapid Exit Taxiways ('RETs) for Runway 09R (the southern runway) [76]. Explaining those works, the 2013 Planning Statement stated that:

"In September 2012, HAL consulted the London Borough of Hillingdon on the creation of three RETs under Part 18 of the Town and Country Planning (General Permitted Development) Order 1995. Specifically, these are on the southern side of the runway towards Terminal 4 and on the northern side towards the Central Terminal Area. Additionally, some 20,840m^2 of existing concrete is proposed to be broken out to provide an overall reduction in the impermeable surface, thereby reducing surface water runoff from

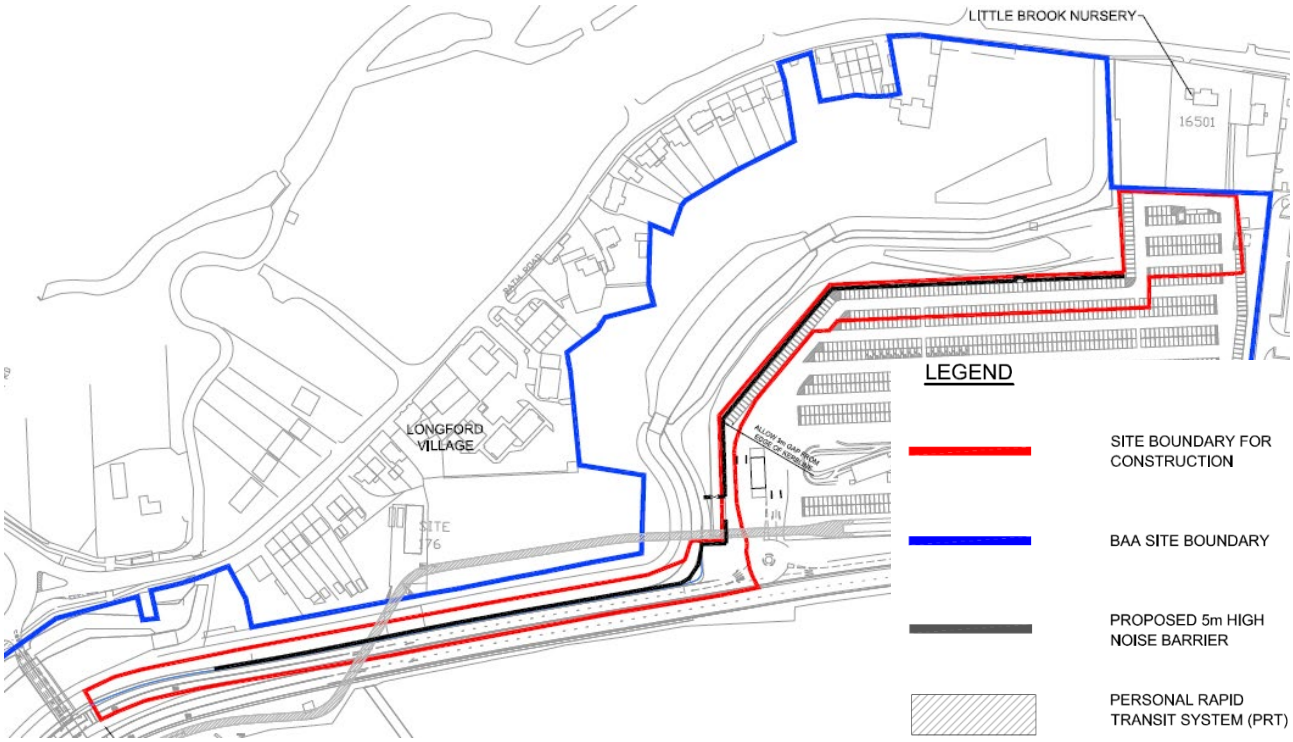
[76] LB Hillingdon planning application ref. 41573/APP/2013/1288 Planning Statement Paragraph 2.1.4.

the airfield. In December 2012, Hillingdon confirmed it had no objection to the RETs. Works to implement the RETs will proceed with the resurfacing of the southern runway this year."[77]

Longford Noise Barrier

5.2.6 The 2013 Planning Statement also provided details on the proposed Longford Noise Barrier and was supported by the 'HAL Noise Barrier for Longford – Construction Methodology and Key Data' report (see **Figure 19**). That report provided further information related to the geometry and alignment of the noise barrier, together with details of barrier foundations and materials.

Figure 19 - Extract Longford Village Noise Barrier Site Location Plan 2013 (drawing ref. 10000-00-GAXXX- 000142)



5.2.7 The following details were provided regarding the proposed noise barrier:[78]

- The construction of the noise barrier was to be divided into two sections.
- The western section was to be 280m in length and would predominantly follow the alignment of the existing 3m high timber highway noise barrier that is situated between Wright Way and the Duke of Northumberland River.
- The eastern section was to be 313m in length and was proposed to follow the alignment of the existing timber perimeter fence surrounding the Terminal 5 business car park. The eastern section would also have included a four metre wide access gate to enable maintenance of the Duke of Northumberland's River.

[77] LB Hillingdon planning application ref. 41573/APP/2013/1288 Planning Statement Paragraph 2.1.5.
[78] LB Hillingdon planning application ref. 41573/APP/2013/1288 Planning Statement Paragraph 2.1.7.

- The requirement for access through the barrier was due to an existing legal obligation on Heathrow Airport Ltd to enable access to land owned by a third party to the west of the Duke of Northumberland's River.
- The majority of the barrier was proposed as 5m high, except a small section around the south-west corner of the T5 business car park, which needed to be reduced to 4m in height due to obstacle clearance limitations related to the effective operation of the airport's radar.[79]
- The material considered to best meet the noise attenuation requirement was a reconstituted wood with a transparent component to the upper 2 metres of the barrier to avoid an over dominant effect for the occupiers of properties in Longford.

Design Alternatives

5.2.8 The accompanying Environmental Statement from May 2013 ('the ES') reported on two 'design alternatives' which had been considered for the airfield infrastructure[80] and an alternative 'do-nothing'[81] scenario (see further details in **Appendix 3**).

5.2.9 The ES reported that the 'do-nothing' alternative would not allow the implementation of the ending of the Cranford Agreement and, therefore, was not considered further.

5.2.10 In respect to the noise barrier, the ES[82] considered a number of alternatives (i.e. Options A, B, C and D) with regard to the location, alignment, and height of the barrier in order to try to reduce environmental and operational constraints (see further details in **Appendix 3**).

5.2.11 The ES found that Option A 'Construct a new noise barrier to the north of the Duke of Northumberland's River, along the line of the existing BAA land ownership boundary adjacent to the existing access track (~5m offset from the river bank)' would be the most effective option in terms of noise reduction. However, several constraints were identified associated with Option A that led to discounting this alternative, including that HAL did not own all the land required, the greater effect on the Conservation Area and visual impacts on the adjoining residential properties.

5.2.12 Option B proposed to 'Replace the existing 3m high noise barrier located adjacent to Wright Way and then install a new barrier along the existing perimeter fence line of the T5 business car park (as per the final design option) but without the gap to facilitate access to adjoining land to the west and including an additional section on the eastern end of the barrier, running north around the north-east corner of the T5 business car park and behind the Littlebrook Nursery to provide specific noise attenuation benefits for the nursery'. The ES reported that

[79] The requirements for obstacle limitations have been revised since the time of the previous application and are reviewed in the Airport Safeguarding Statement, which forms Appendix 6 to this Planning Statement.
[80] LBH planning application ref. 41573/APP/2013/1288 Environmental Statement Paragraph 3.2.10 and Table 3.1.
[81] LBH planning application ref. 41573/APP/2013/1288 Environmental Statement Paragraph 2.4.1
[82] LBH planning application ref. 41573/APP/2013/1288 Environmental Statement Paragraph 3.2.13 and Table 3.2

this option was discounted because the benefits of the noise reduction to the nursery did not outweigh the adverse effects of removing a number of mature trees and scrub.[83]

5.2.13 Option C was to 'Install a new noise barrier along the line of the airside fence by replacing a length of the fence' and Option D 'Offset a new barrier 3m from the existing airside perimeter fence'. The ES discounted both options based on the obstruction of the Glide Path antennae safeguarding zone and the Obstacle Limitation Surface of Heathrow Airport.

5.2.14 An alternative to Option B was adopted, with a gap between the eastern and western sections of the barrier to enable HAL to fulfil an existing legal obligation to provide access to land owned by a third party to the west of the Duke of Northumberland's River. The western section followed the alignment of the existing timber perimeter fence surrounding the Terminal 5 business car park, excluding the section behind the Littlebrook Nursery to retain a line of mature trees.

Reasons for Refusal and Inquiry

5.2.15 The Officer's Report to the Major Applications Planning Committee[84] on 11 February 2014 recommended refusal of the 2013 Application and concluded that:

"The submitted planning material tries to identify and assess the environmental implications of the proposals, and suggests ways by which compensation could be offered or mitigation introduced. It also makes references to modern planes now being quieter. However, as set out in this report, the submitted technical material is considered inadequate and insufficient in a number of areas. Officers do not consider that the application properly assesses noise impacts and these are considered to be crucial in light of the impacts on the health and well being of residents or on educational establishments (local schools). The application also fails to provide adequate mitigation for those who are acknowledged to suffer from significant increases in noise.

It is also considered that aircraft operations facilitated by the development would result in a significant and unacceptable worsening of local air quality, to the detriment of the health of the local population. No specific or adequate mitigation measures are proposed as part of the application to address this concern.

The Environmental Statement does not comply with the 2011 Environmental Impact Assessment Regulations as it does not adequately assess the effects of the development. It also does not adequately consider cumulative impacts with other proposed operational changes. The applicant does not consider it necessary to assess the cumulative impacts with those recommended by the Airports Commission because no decision has been made to proceed with them yet. The applicant argues it is simply a recommendation for the Department for Transport to consider. The Council does not agree with this approach. There is clear guidance on what should be encompassed by a cumulative assessment. The Council considers the recommendations of the Airports Commission to be suitably advanced to be captured by the Infrastructure Planning Commissions definition of cumulative development."

[83] That decision has been revisited in this application and design proposals developed to extend the barrier further east whilst limiting the impact on trees.
[84] Available from https://modgov.hillingdon.gov.uk/ieListDocuments.aspx?CId=325&MId=1840&Ver=4

Although not explicit in the application, (nor assessed in terms of environmental impact), the proposed works could facilitate the introduction of 'mixed-mode' operations and other operational changes recommended by the Airports Commission to the Department for Transport albeit within the existing cap of 480,000 air traffic movements per annum and night time operating constraints. If the applicant were to apply for mixed-mode operations this would raise significant concerns given the potentially serious and adverse noise impact that this would have on local communities. With this in mind, if Members are minded to approve this application, Officers would strongly recommend that a condition is imposed on the planning permission which prohibits mixed-mode operations and those recommended by the Airports Commission.

Finally, part of the Longford noise barrier is to be constructed within the Green Belt. As a consequence, the applicant is required to demonstrate very special circumstance. No such justification has been presented and therefore this part of the development is considered unacceptable."

5.2.16 The decision was not made at that Committee as an addendum to the application had been submitted by Heathrow in an attempt to meet the stated concerns.

5.2.17 The Major Applications Planning Committee minutes record the following:

"In introducing the report, officers directed Members to note the changes in the addendum circulated at the meeting. It was explained that with respect to the issue of noise, the Local Planning Authority (LPA) fundamentally disagreed with the methodology used to assess noise impact. No adequate measures had been proposed to mitigate the adverse effect of the development with regard to noise or air quality and there were concerns that inadequate justification had been given for the harm to the green belt area.

Officers advised that very minor physical work was proposed but major changes were proposed in the aircraft taking off and landing at the airport. Some areas would be impacted upon more than other areas and officers having examined the very lengthy Environmental Impact Assessment (EIA) did not consider that the mitigation proposed would be adequate for those areas that would be affected by noise.

Member expressed concerns about the noise level and the detrimental effects it would have on residents, as well as on the concentration of children in Cranford school. The Committee therefore indicated that further work was needed to address this issue."

5.2.18 On 21 March 2014, the LB Hillingdon refused the 2013 Application for five reasons set out in the Decision Notice (see Decision Notice in **Appendix 4**):

"1 The scheme would facilitate altered aircraft movements/operations (including queuing), and the application fails to demonstrate that these would not result in significant adverse noise impacts on the health and well being of residential populations, users of schools and community facilities. The scheme would also fail to provide adequate and sufficient mitigation measures to affected residents, schools and community facility users to offset the resultant negative noise and associated health and well being impacts. As such the scheme is considered contrary to Paragraph 123 of the National Planning Policy Framework, London Plan (July 2011) Policies 2.6, 3.2, 5.3, 6.6, and 7.15, Hillingdon Part 1 Local Plan Policies EM8 and T4, Hillingdon Local Plan: Part Two Saved UDP Policies

(November 2012) Policies A1, A2, OE1 and OE3, the Noise Policy Statement for England (March 2010) and paragraph 3.12 of the Aviation Policy Framework *(March 2013).*

2 The scheme would facilitate altered aircraft movements/operations (including queuing), and the application fails to demonstrate that this would not result in an unacceptable deterioration in local air quality (failing to sustain compliance with European Union health-based air quality limit values), and additionally no specific mitigation measures are proposed to minimise the exposure of the nearby impacted communities to the resultant polluted air, contrary to paragraph 124 of the National Planning Policy Framework, paragraph 3.47 of the Aviation Policy Framework (March 2013), Policies 2.6, 3.2, 5.3, 6.6, 7.14 of the London Plan (July 2011) and Policies EM1, EM8 and T4 of the Hillingdon Local Plan: Part 1, Hillingdon Local Plan: Part Two Saved UDP (November 2012) Policies A1, A2 and OE1.

3 The Environmental Statement fails to comply with relevant Environmental Impact Assessment Regulations 2011 (including the requirements of Schedule 4 Part 1- 'Information for inclusion in Environmental Statements') in that it does not adequately:

a) Describe the likely significant effects from noise impacts

or

b) Set out the measures to prevent, reduce and where possible offset any significant adverse effects on the environment.

4 The Environmental Statement fails to provide a cumulative assessment of the proposed development and the associated operational airport changes with the recommendations of the Airports Commission and the ability to operate 'mixed mode' within the existing air transport movement limits.

The Environmental Statement therefore fails to comply with Schedule 4 Part 1(b) of the 2011 EIA Regulations.

5 The applicant has failed to demonstrate that the proposed acoustic screen by virtue of its height and overall size would not represent an incongruous and visually dominant form of development and would not harm the character and appearance of the wider area, and detract from the openness of the site and therefore be harmful to the Green Belt. The proposal is therefore contrary to policies OL1, OL4, BE13 and BE19 of the Hillingdon Local Plan: Part Two Saved UDP Policies (November 2012) and to Policy EM2 of the Hillingdon Local Plan Part One - Strategic Policies (November 2012), Policy 7.16 of the London Plan (2011) and Paragraph 79 and 87 to 89 of the National Planning Policy Framework."

5.2.19 It should be noted that, at that time, the route of the proposed noise barrier lay in the designated Green Belt.

5.2.20 The reasons for refusal were unusual in a number of respects but particularly in their direct criticism of the Environmental Statement.

5.2.21 On 8 October 2014, Heathrow submitted an Appeal (ref. APP/R5510/A/14/22257742) to the Planning Inspectorate under section 78 of the Town and Country Planning Act 1990.[85]

5.2.22 On 23 October 2014, the appeal was recovered for decision by the Secretaries of State for Communities and Local Government and for Transport. Lloyd Rodgers BENg (Hons) CEng MICE MBA was the Inspector appointed to hold an Inquiry into the appeal and report to the Secretaries of State.

5.2.23 On 9 November 2015, after a two week public inquiry, the Inspector's report was submitted with the recommendation as follows:

"I recommend, in light of my overall conclusions above, but subject to any relevant and substantive matters arising from the Judicial Review concerning the airspace change process[86], that the Secretaries of State allow the appeal and grant planning permission for enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport in accordance with the application dated Ref 41573/APP/2013/1288, dated 29 November 2013 subject to the conditions set out in Annex D to this report."

5.2.24 On 2 February 2017, the Secretaries of State agreed with the Inspector's recommendation, allowed Heathrow's appeal and granted planning permission subject to conditions and a Section 106 Agreement for enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport.

5.3 Key Issues

5.3.1 The Inspector identified that issues relating to the ending of the Cranford Agreement were not relevant to the decision and that:

"…having regard to the 7 September 2010 statement of Mrs Theresa Villiers (Minister of State, Department for Transport) in which she affirmed the previous Government's decision to end the Cranford Agreement, I consider that ***the issue that lies at the heart of this appeal is whether or not the proposed mitigation and compensation measures for those likely to be affected by the proposals can be regarded as 'appropriate'****."*[87] (emphasis added)

5.3.2 However, the following key issues were identified by the Inspector:

- Green Belt;
- Character and appearance of the area;
- Living conditions – noise;
- Living conditions – air quality;

[85] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Available from https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=2225774

[86] CAA Guidance on the Application of the Airspace Change Process CAP 725 Airspace Change Process Guidance Document available from https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=395

[87] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742, Inspector's Report paragraph 840.

- Whether other considerations amount to very special circumstances.

5.3.3 Following the inquiry, in an extensive report, the Inspector reached his conclusions on each of these issues and the Secretaries of State agreed.

Green Belt

5.3.4 In terms of Green Belt, the Secretaries of State agreed with the Inspector's Report[88] as follows:

"…where the proposed acoustic barrier would be located in the Green Belt, it should be deemed inappropriate development and should not be approved except in very special circumstances. Furthermore, …. the Secretaries of State agree with (the) conclusion at IR967 that the proposed barrier would materially and adversely affect the openness of the Green Belt. The Secretaries of State have gone on to consider these harms in the context of the overall balance to determine whether the very special circumstances necessary to justify the development exist…"[89]

Character and Appearance of the Area

5.3.5 In relation to the character and appearance of the area, the Secretaries of State agreed with the Inspector's findings that:

"…the proposed works within the airport boundary, save for the proposed barrier, are minor and consistent with the existing airport infrastructure so that they would have no material impact on the area's character and appearance. They also agree that, for the reasons given at IR969-970, the proposed barrier would result in some limited harm to the general character and appearance of the area contrary to UDP policies BE13 and BE19. However, for the reasons given at IR971, the Secretaries of State agree with the Inspector that the proposed barrier would not affect the significance of the nearby conservation area. They also agree with the Inspector that the proposed noise barrier needs to be taken into account in assessing the impact on the Green Belt and on the character and appearance of the area in the overall planning balance…"[90]

Living Conditions - Noise

5.3.6 In relation to noise and health, the metrics used to identify noise effects were questioned by LB Hillingdon but, in general, the Secretaries of State agreed with the Inspector:

"The Authorities point out that compliance with the development plan is dependent on both the adequate assessment of any effects and the adequate mitigation of those effects. My finding in respect of the assessment of effects has some parallels with the issues identified by the Inspector in the T5 report (November 2000) – in that I consider that the use of the $LA_{eq\ 16hr}$ metric and the reliance on 57dB $LA_{eq\ 16hr}$ as marking the onset of community annoyance both have considerable shortcomings. However, whilst I acknowledge the

[88] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Inspector's Report paragraph 965
[89] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 12
[90] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 13

Authorities' concerns that averaging metrics fail to give adequate weight to the number of aircraft movements and to individual noise events, I consider that for the reasons above, $LA_{eq\ 16hr}$ remains the most appropriate metric to be used in assessment and mitigation terms."[91]

"With regard to the Inspector's conclusions on the impact of noise on living conditions (IR1117-1122), the Secretaries of State agree with him that the noise mitigation measures proposed by your Company should be supplemented by the provision of the "Cranford-specific" insulation scheme to which the Inspector refers at IR1122 and which he proposes should be imposed as a condition in granting planning permission (see paragraph 20 below). They agree with the Inspector that such measures would be proportionate, particular to the development, adequate and appropriate, and in compliance with the development plan, the Framework and guidance and the NPSE. They also consider that it would be in line with the expectation of the Coalition Government, when announcing the cessation of the Cranford Agreement in 2010, that appropriate mitigation and compensation measures would be provided for those likely to be adversely affected by the ending of that Agreement (IR18)."[92]

5.3.7 With regards to mitigation and compensation for noise impacts, the Secretaries of State agreed with the Inspector's approach that:

"…the Government's decision that the Cranford Agreement should be ended means that the issue that lies at the heart of this appeal is whether the proposed mitigation and compensation measures for those likely to be affected by the proposals can be regarded as "appropriate".[93]

"…the Secretaries of State agree with the Inspector's conclusions within those paragraphs and at IR1116-1122 on mitigation and compensation for noise. In particular, the Secretaries of State have given careful consideration to, and agree with, the Inspector's analysis and conclusions on the impact of noise on residential properties (IR1081-1100). They also agree with him that HAL's proposed mitigation in regard to schools can be regarded as appropriate (IR1111); and with regard to his conclusions on community buildings and outdoor areas (IR1112-1113). Furthermore, they agree that the noise barrier would form an appropriate part of the overall mitigation package (IR1116)."[94]

5.3.8 Notably, and whilst there was much debate at the planning inquiry about appropriate levels of mitigation for the noise impacts of the proposals, the Inspector concluded (and the Secretaries of State agreed), as follows:

"1079. In that the social and environmental aspects of sustainability appear to have been the drivers behind the decision to end the Cranford Agreement I agree with HAL that "….it would be disproportionate and unreasonable to require HAL to make substantial changes to its overall approach to the offer of insulation for those affected by noise from the airport,

[91] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Inspector's Report paragraph 1119.
[92] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 18.
[93] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 14.
[94] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 15.

as the price for obtaining the planning permission needed to implement full runway alternation on easterlies". In broad terms I also agree with HAL that, in those circumstances, there is no obvious justification for doing anything other than applying the Government's policy in the APF [562]."

5.3.9 The implications of that conclusion for this application are considered in **Section 8**.

Living Conditions – Air Quality

5.3.10 In respect to air quality, the key issue was related to the need to mitigate breaches of the air quality limit value in Longford, which were caused by start of roll activity. A need for mitigation was therefore identified and took the form of *"…measures to improve vehicles used in the bus fleets passing through Longford with the objective of reducing NOx emissions from such vehicles to achieve Euro VI or better emission standards"*[95]. The Secretaries of State agreed with the Inspector's conclusions that:

"…there would seem to be little doubt that the development would lead to a worsening of some already significant exceedances of the EU limit value. With regard to mitigation (IR1159-1170), the Secretaries of State agree with the Inspector's conclusions at IR1171 that mitigation of the air quality effects of the proposed development is necessary and justified and that the proposed mitigation would be reasonable, proportionate and sufficient to adequately mitigate the adverse effects of the development so that there would be no conflict with the development plan in this regard."[96]

5.4 Balance

5.4.1 These matters were brought together in the context of Green Belt policy and, in particular, whether the harm to the Green Belt (of the noise barrier) and any other harms were outweighed by other considerations such that there were very special circumstances justifying the grant of consent. The Secretaries of State agreed with the Inspector that:

"The noise barrier is a necessary part of the development which is intended to implement Government policy to redistribute noise more fairly around the airport; and that ***the public interest benefits that would result from the development (with appropriate mitigation) should carry very substantial weight in favour of the scheme*** *(IR1173). The Secretaries of State also give moderate weight to the benefit which the barrier would bring in terms of operational robustness and some modest weight in favour of the development to the beneficial effects which would be experienced elsewhere (IR1175). However, they also agree with the Inspector (IR1174) that it would not be appropriate to discuss any change to the Green Belt boundary in the context of this appeal."*[97] (emphasis added)

"The Secretaries of State have gone on to consider whether the material considerations identified in the previous paragraph as benefits of the scheme amount to very special circumstances which would outweigh the harm caused by the construction of that part of

[95] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Inspector's Report paragraph 1170.
[96] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 17.
[97] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 18

the noise barrier in the Green Belt (as identified at paragraph 11 above) and, for the reasons given by the Inspector at IR1176-1177, they agree with his conclusion at IR1178 that the very special circumstances necessary to justify the development do exist."[98]

5.5 Conclusions

5.5.1 In terms of planning balance and overall conclusion, the Secretaries of State concluded that:

"The appeal scheme is in general accordance with the development plan as a whole. For the reasons given above, they also consider that the appeal scheme is in general compliance with relevant national policy and guidance. Although those parts of the acoustic barrier located in the Green Belt would constitute inappropriate development, with some harm to the openness of the Green Belt and the character and appearance of the area, the Secretaries of State are satisfied that there are very special circumstances to justify its construction. They are also satisfied that the proposed mitigation measures, including the "Cranford-specific" compensation scheme proposed by the Inspector, would be adequate to mitigate the adverse effects of the development. The Secretaries of State therefore conclude that the appeal be allowed and planning permission granted."[99][100]

5.5.2 The appeal was allowed subject to conditions (see **Appendix 5**), for which reasons were given and which can be summarised, as follows:

- Conditions 1 & 2 - limiting the life of the permission and listing the application plans.
- Conditions 3 & 4 – noise barrier conditions - in the interests of the character and appearance of the area, the living conditions of local residents, the ecology of the area and the safety of aircraft with regard to bird strikes it is important to ensure an appropriate appearance and construction for the barrier.
- Condition 5 – heritage assets of archaeological interest - a condition requiring a written scheme of investigation, and implementation of the development in accordance with that scheme.
- Conditions 6 & 7 - requiring the submission and implementation of both a Construction Environmental Management Plan and a Construction Logistics Plan are necessary and reasonable in the interests of the environment and the living conditions of local residents.
- Condition 8 - to manage flooding risk and to ensure appropriate integration with the existing sustainable drainage.

[98] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 19
[99] Planning Inspectorate (2017). Appeal ref. APP/R5510/A/14/22257742. Secretaries of State decision paragraph 20.
[100] The Cranford specific scheme referred to relates to the Inspector's conclusion that those experiencing noise greater than 69dB $_{Leq}$ should be entitled to noise insulation rather than just relocation assistance.

- Condition 9 - additional condition to ensure that the 'Cranford-specific' insulation scheme is made available to those households who would otherwise only be entitled to relocation assistance.

5.5.3 With regards to the Section 106 obligations:

- The Applicant submitted two Unilateral Undertakings dated 22 July 2015.
- The first undertaking, to LB Hillingdon, secured the relocation and insulation offers to 'Type A' and 'Type B' properties respectively as well as the vibration offer to 'Type C' properties, and the school insulation/ventilation offer to the Littlebrook Nursery School;
- The second undertaking, to LB Hillingdon and LB Hounslow, secured relocation and insulation assistance to residential properties and provided for school insulation/ventilation measures at nine eligible schools.
- Proposed mitigation also included the payment of £540k "…*by way of an Air Quality Contribution to be used towards measures to improve vehicles used in the bus fleets passing through Longford with the objective of reducing NOx emissions from such vehicles to achieve Euro VI or better emission standards."* [101]

5.5.4 The detailed nature of the insulation obligations is discussed in subsequent sections of this **Planning Statement**.

5.6 Lessons Learned

5.6.1 Each application falls to be considered on its own merits in the light of up to date circumstances.

5.6.2 However, the similarities between the current proposed application and that determined in 2017 are so great that the previous decision of the Secretaries of State is highly material in principle to a determination in this case.

5.6.3 There are four matters of particular relevance arising from the 2017 decision:

I. Matters of principle and approach.

II. Policy compliance.

III. Benefits and the test to be applied.

IV. The approach to environmental assessment.

[101] These included the compliance with Euro VI standards. The Euro 6 bus delivers a 67% reduction in NOx. The Euro 6 reduced emissions are achieved by a SCRT system (selective catalyst regeneration trap) and a DPF (diesel particulate filter) both designed to reduce NOx levels.

Principle and approach

5.6.4 Both the Inspector and the Secretaries of State identified that the principle of the merits of ending the Cranford Agreement were matters of settled policy and not matters to be reopened by the application. [102]

Policy compliance

5.6.5 The Inspector and the Secretaries of State found that the proposals complied with the development plan as a whole and with up to date national policy.[103]

5.6.6 These matters fall to be considered again but the summary of policy in **Section 4** of this Planning Statement concludes that the same is true in principle in this case. The proposals benefit from up to date and direct policy support.

Test to be applied

5.6.7 In 2017, because the noise barrier fell within the Green Belt and represented inappropriate development there, the Inspector and the Secretaries of State were obliged to consider whether there were 'very special circumstances' ('VSC') which outweighed the harm to the Green Belt and any other harm. Effectively, there was a presumption against the grant of consent unless VSC could be demonstrated. The Secretaries of State did find, however, that there were VSC and agreed with the Inspector, for instance, that these included "*substantial public interest benefits in terms of noise*", as well as lesser operational and air quality benefits. [104]

5.6.8 In the case of this application, the noise barrier no longer falls in the Green Belt and the VSC test does not apply. A less onerous test applies in this case: namely, whether the proposals accord with the development plan and, if not, whether planning consent is nevertheless justified taking into account any other material considerations.

5.6.9 The proposals do accord with the development plan and other considerations also weigh in favour of the grant of planning permission. Legitimate questions arise about the nature of any mitigation, and these are considered in subsequent sections of this Statement. On the principal issue of noise mitigation, however, it is clearly material that the Inspector and the Secretaries of State considered it would be proportionate and appropriate to extend Heathrow's pre-existing noise insulation scheme to those newly affected by easterly alternation.

5.6.10 Matters of mitigation are addressed in the next sections of this Planning Statement.

The approach to Environmental Assessment

5.6.11 Consideration of the previous application by LB Hillingdon was unusual in that the Council was not satisfied with the approach taken in the submitted ES. The same issues should not arise in this case, for two main reasons:

[102] Secretaries of State DL paragraph 14.
[103] Secretaries of State DL paragraph 22.
[104] Inspector's report paragraph 1178 and Secretaries of State DL at paragraphs 19 and 22.

- The Council's concerns were examined closely through the inquiry that led to the 2017 decision from the Secretaries of State; and
- Heathrow and LB Hillingdon have worked closely together in this application to agree the scope of the ES.

5.6.12 The concerns raised by LB Hillingdon about the ES in 2014 were detailed and wide ranging. They included:

- that the ES did not properly identify likely significant effects, rather it described impacts;
- that the ES did not sufficiently contain "*a description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment*"; and
- that the ES should contain further cumulative assessment of the project together with other 'reasonably foreseeable' changes in operations at Heathrow.

5.6.13 Each concern was examined in detail by the Inspector who concluded that the ES was adequate for the purposes required. Much of that debate was based on the facts at that time but there are some general principles which it is helpful to record here:

- it is for the decision maker, rather than the ES to determine if the mitigation measures put forward are adequate;[105]
- where future operational changes may require to go through a formal Airspace Change Process, there is no reason to believe that the testing of environmental issues in that process would be insufficient;[106]
- in deciding whether other projects should be subject to cumulative assessment with the application proposal, it is appropriate to consider:
    - the level of certainty that other project will proceed;
    - whether there is sufficient information about that project to enable a meaningful assessment to be undertaken; and
    - whether that other project would be likely to generate significant environmental effects.[107]

5.6.14 It is not necessary to rehearse the matters disputed but settled in the inquiry in more detail here, but the Inspector examined them at length and concluded that the submitted assessment was compliant with the necessary requirements.[108] The ES in this case has built on the learning established through the testing of the previous application.

[105] Inspector's report paragraph 901
[106] Inspector's report paragraph 917
[107] Under the 2017 EIA Regulations, the ES is required to assess the cumulative effects of the proposed development with other existing and/or approved projects
[108] Inspector's report paragraph 951.

6. CONSULTATION AND ENGAGEMENT

6.1 Introduction

6.1.1 A **Statement of Community Involvement (SOCI)** has been prepared and submitted with the planning application. The SOCI provides details of a wide range of activities implemented by Heathrow to engage with the communities most affected by easterly alternation.

6.1.2 The nature of the Cranford Agreement is widely understood in communities around the airport and the Government's decision to end the Cranford Agreement was itself informed by extensive community and stakeholder engagement, as explained in Section 2.3 of this Planning Statement.

6.1.3 Awareness was also raised by publicity and engagement associated with Heathrow's previous planning application through extensive engagement carried out by Heathrow, particularly with affected local authorities and statutory consultees and by LB Hillingdon through consultation on Heathrow's planning application.

6.1.4 To ensure that information is available to those with a specific interest, Heathrow maintains and refreshes a website dedicated to easterly alternation and the ending of the Cranford Agreement.

6.1.5 Heathrow also engages extensively during the production of and consultation on its 5-yearly Noise Action Plan, which includes details of Heathrow's noise insulation policies.

6.1.6 Senior level engagement with LB Hillingdon on these current proposals for easterly alternation infrastructure commenced in early 2023, following which Heathrow wrote to senior stakeholders and prepared a campaign of engagement so that all relevant statutory consultees were engaged and so that public awareness of the proposals was raised in advance of the submission of the planning application.

6.1.7 Three specific aspects of that engagement are summarised here, with more detail provided in the SOCI.

6.2 Engagement with Longford

6.2.1 Longford is uniquely affected by easterly alternation on account of its proximity to the airfield works, proximity to the western end of runway 09L, taxiing and the start of roll and the potential to be affected by ground noise, vibration and construction noise as well as the effects of aircraft operating a different pattern of alternation.

6.2.2 In addition to wider public engagement, therefore, Heathrow consulted Longford residents directly about the principle and design details of a noise barrier.

6.2.3 In December 2023, letters were sent to approximately 300 addresses in Longford, giving details of Heathrow's intention to submit a planning application and asking for feedback on the proposed noise barrier – the question of a barrier in principle and questions about its extent and height. To ensure awareness, Heathrow supplemented the letters with a door

knocking exercise. A good response was received. Whilst there were differing views, there was a strong overall consensus that a barrier was necessary and appropriate and a clear view that it should be as high as it would need to be to achieve a necessary level of noise reduction. The tabulated results were as follows:

Table 4 – Extract responses to the proposed noise barrier

Total Responses	Do you live to the north or the south of the Bath Road?	Do you support the introduction of a 5 metre high noise barrier?	For the section around the Terminal 5 car park, do you support a 5 metre or 7 metre high barrier?	Would you support the top 2 metres of the barrier being transparent?
Online: 19	South: 21	Yes: 27	5m: 6	Yes: 23
Door Knocking: 13	North: 11	No: 5	7m: 26	No: 9
Total: 32				

6.2.4 This feedback has been used directly to inform the length, height and design of the noise barrier, details of which are given in the **Design and Access Statement**.

6.3 Technical engagement

6.3.1 Engagement with officers of LB Hillingdon commenced in March 2023 and has continued through a series of technical working meetings and regular 'catch-ups'.

6.3.2 A Planning Performance Agreement (PPA)[109] was signed in November 2023 setting out details of how Heathrow and LB Hillingdon would work together through the application preparation process and how Heathrow would fund the Council's costs in assessing the application. A series of working meetings have taken place under the terms of the PPA with planning officers, specialist officers and with consultants appointed by LB Hillingdon. Heathrow prepared a detailed Scoping Report in order to work towards agreement on how the Environmental Assessment should be structured and approached. Detailed responses were received from the principal statutory consultees and LB Hillingdon provided a full Scoping Opinion in February 2024. The consultee responses and the terms of the Scoping Opinion have substantially informed the drafting of the Environmental Statement. Follow up engagement has taken place with some consultees, particularly the Environment Agency.

6.3.3 Through LB Hillingdon, Heathrow has engaged with officers of the Greater London Authority and three technical working meetings have been held with CISHA (the Council for the Independent Scrutiny of Heathrow Airport), which includes officer representatives of each of the planning authorities around the airport.

6.4 Public engagement

6.4.1 In addition to working through established community engagement fora, such as Heathrow's Local Community Forum and its Noise and Airspace Community Forum, Heathrow organised a series of public engagement events over a two week period in September 2024 where representatives of Heathrow and its consultant team made themselves available to explain the proposals for easterly alternation infrastructure and to answer questions from

[109] Ref. DocuSign Envelope ID: BB8523A5-4364-4300-966A-CE098BF30647

members of the public. The events were publicised through a postcard drop in the areas most affected and by a social media campaign. The schedule of events is summarised below:

Table 5 – Schedule of events location

Location	Date	Times
Isleworth Public Hall	Tuesday 10 September	16:00 – 20:00
Southall – Havelock Family Centre	Wednesday 11 September	12:00 – 17:00
Longford – Thistle Hotel	Thursday 12 September	15:00 – 20:00
Cranford Community College	Saturday 14 September	10:00 – 14:00
Stanwell Moor Village Hall	Tuesday 17 September	13:00 – 17:00
Old Windsor Memorial Hall	Wednesday 18 September	10:00 – 14:00
Longford – Thistle Hotel	Thursday 19 September	16:00 – 20:00

6.4.2 The principal purpose of the events was to raise public awareness of the then forthcoming planning application, recognising that it is for LB Hillingdon to conduct formal consultation on the application and also that it would not be appropriate to consult on the effect of the ending of the Cranford Agreement, as that decision has already been made by government.

6.4.3 Results in terms of attendance and feedback, together with details of the information made available at the events are set out in the SOCI.

6.4.4 The SOCI also explains that Heathrow received:

- 539 website visits via the postcards, which provided a QR code.
- 11,892 website visits via the sponsored social media posts
- 14,442 visits to the website overall.

7. APPROACH TO THE PLANNING ASSESSMENT

7.1 Introduction

7.1.1 The following sections of the Planning Statement consider the acceptability of the Proposed Development against relevant planning policy tests, taking into account the conclusions arising from the assessment of likely significant environmental effects set out in the submitted ES.

7.1.2 As with the decision reached on the previous application, this Planning Statement proceeds on the basis that the decision to end the Cranford Agreement has been made by the Government and forms established government policy which does not fall to be questioned or tested through this application. As the Inspector identified in his recommendations to the Secretaries of State, by reference to the terms of the Government's decision (see earlier at paragraph 2.3.17), *"the issue that lies at the heart of this appeal is whether or not the proposed mitigation and compensation measures for those likely to be affected by the proposals can be regarded as 'appropriate'."*[110]

7.1.3 The Secretaries of State directly agreed at paragraph 14 of their decision letter.

7.1.4 The principal sources of relevance necessary to undertake this exercise therefore are an understanding of relevant national and development plan planning policy and the assessment of likely significant effects set out in the ES. Other material considerations include the helpful guidance available from the Inspector's report and the decision of the Secretaries of State on the previous easterly alternation planning application.

7.2 The Environmental Statement

7.2.1 The Proposed Development constitutes 'EIA development' and Heathrow has therefore produced the documentation to inform an Environmental Impact Assessment. In doing this an Environmental Statement (ES) is submitted as part of the application. By following the full EIA process, Heathrow has ensured that any potentially significant effects on the environment resulting from the implementation of easterly alternation are considered and avoided or, where appropriate, mitigated.

7.2.2 The legal and procedural requirements of the EIA process are set out in more detail in the **Chapter 4: Legislative and Policy Context of the Environmental Statement**.

Scoping Opinion

7.2.3 The scope for the planning application was agreed as part of the PPA and the scope of the ES was the subject of a formal scoping process, described in more detail in **Chapter 5**: **Approach to EIA of the ES**.

[110] Inspector's report paragraph 840.

7.2.4 Heathrow submitted a detailed EIA Scoping Report to LB Hillingdon and a formal request[111] for a Scoping Opinion under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 on 01 November 2023, which was then the subject of consultation by LB Hillingdon with statutory consultees. LB Hillingdon provided its formal Scoping Opinion on 01 February 2024.

7.2.5 Heathrow and LB Hillingdon agreed that the following topics must be included in the ES[112]:

- Air quality;
- Noise;
- People and communities;
- Health; and
- Biodiversity

7.2.6 Through its Scoping Opinion, LB Hillingdon agreed with Heathrow that the following topics were not likely to give rise to significant environmental effects and could be scoped out of the ES[113]:

- Land quality;
- Major accidents and disasters;
- Traffic and transport;
- Waste management;
- Vortex damage;
- Greenhouse gas and climate change; and
- Hydrology and hydrogeology.

7.2.7 LB Hillingdon also advised that the following topics could additionally be scoped out, as they were not likely to generate significant environmental effects, however, Heathrow have decided to include them within the ES as statutory stakeholders requested such through the scoping process:

- Historic environment; and
- Landscape and visual impact assessment.

[111] Planning reference 41573/APP/2023/3159. Available at https://planning.hillingdon.gov.uk/OcellaWeb/planningDetails?reference=41573/APP/2023/3159&from=planningSearch.
[112] Aspects scoped into the assessment are listed at Table 5.1. of the ES Chapter 5: Approach to EIA and further details are provided within each ES Chapters 6-12
[113] Aspects scoped out of the assessment are listed at Table 5.2 of the ES Chapter 5: Approach to EIA

7.2.8 Of the topics scoped out and listed above, LB Hillingdon nevertheless stated that some may be relevant to the planning issues raised by the Proposed Development and that they should be considered in the Planning Statement.

"Scoped out topic areas does not translate to an opinion that there will be no resulting impacts or effects. It is simply a conclusion on the significance in the context of the EIA Regulations. A scoped out topic may still give rise to impacts that could be positive or negative and will require appropriate treatment as part of a subsequent planning submission as with any other material planning considerations."

7.2.9 This Planning Statement, therefore, considers each of the topics which LB Hillingdon has requested should be addressed in either the PS or the ES, in the following sequence:

- **Section 8**: Noise and vibration;
- **Section 9**: Air quality;
- **Section 10**: Other environmental topics (carbon, historic environment, biodiversity (including arboriculture impact assessment and HRA), Trees, Biodiversity Net Gain and Flood Risk Assessment); and
- **Section 11**: People and communities (including Health) and Equalities.

7.2.10 Overall conclusions on policy compliance are set out in Section **12**.

7.3 Mitigation

7.3.1 In assessing the compliance of the Proposed Development with planning policy, account also needs to be taken of mitigation.

7.3.2 Mitigation is embedded in the application, as follows:

- through design: the **Design and Access Statement** ('DAS') in particular describes how the design of the Proposed Development has evolved to limit its environmental effects;
- through environmental management commitments made in relation to construction activities - in particular, the **CEMP** and the commitments made in the **Circular Economy Statement**; and
- through commitments to the mitigation of aircraft noise.

7.3.3 The **Design and Access Statement** describes the proposed 'embedded' (primary) mitigation measures, which include:

- the construction of a five to seven metre (m) high noise barrier to the south of Longford Village;
- constructing the noise barrier in advance of other construction works on the airfield;
- removal of redundant concrete areas on the airfield and planting with grass mix in order to ensure that the Proposed Development does not result in an increase in the impermeable surface area at the airport; and

- the positioning of the new Runway Access Taxiways so as to limit ground noise and air quality impacts in Longford.

7.3.4 The **CEMP** has been prepared by the appointed contractor VolkerFitzpatrick Ltd ('VFL') in support of this application. The environmental management commitments are set out in section 3.6 of the CEMP. As explained in the CEMP, it is proposed to meet the objectives of the Easterly Alternation Project whilst addressing any associated risks and ensuring the development is compliant with both legal and planning requirements. Generally, Heathrow is committed through the CEMP to:

- implementing an Environmental Management System ('EMS') throughout all project activities;
- complying with relevant environmental legislation, and applying the Considerate Constructors Scheme;
- establishing project environmental targets that support the effective management of issues identified through environmental appraisal;
- wherever possible, influencing phasing or site decision-making through solutions that reduce environmental impact;
- considering the circular economy drivers, sustainability and recycling during materials selection and management, wherever Heathrow can have an influence;
- mitigating adverse environmental impacts such as noise, dust, odour, waste, and impacts on the natural environment, whilst addressing local community and stakeholder concerns;
- working with suppliers and subcontractors to improve overall project environmental performance; and
- providing appropriate environmental information and guidance to the project team.

7.3.5 A Site Management Plan (SMP) which includes a site-specific Environmental Management Plan and associated Site Waste Management Plan will also be prepared in line with principles established in the CEMP. An extract from the draft SMP showing the environmental measures proposed is appended with the **CEMP**.

7.3.6 In terms of waste and recycling, the application aims to maximise the potential for recycling construction materials arising from the project and to contribute to the London Plan reduction and recycling targets. Targets for recycling of soils and granular sub-base materials are proposed, together with measures to ensure they are met (see **CEMP Appendix H).**

7.3.7 A **Circular Economy Statement** ('CES') has been prepared by VFL to accompany the application in line with London Plan Policy SI 7 (Reducing waste and supporting the circular economy). It provides a description of the works proposed in the construction phase, outlining the mitigation commitments and the required monitoring and management of specific environmental effects where required, including the potential for re-use and recycling materials derived from the demolition of existing infrastructure:

- by re-using materials within the project; and / or
- by making the materials available to the local construction market; and/or
- by minimising quantities of residual materials that would otherwise be regarded as waste.

7.3.8 The **CES** describes an approach which is consistent with the principles of:

- Retain – by retaining and repurposing areas of existing airfield pavement and associated infrastructure such as airfield ground lighting.
- Reuse – by reusing existing materials such as sub-base and providing residual materials arising from demolished concrete areas for crushing to produce aggregate (also reducing embodied carbon).
- Recycle – by using materials recycled from the removal of existing airfield pavements etc and using other recyclable material for construction as far as practical (provided design construction quality and longevity is not compromised).

7.3.9 The **CEMP** also sets out a package of additional mitigation measures as set out below.

Working hours

7.3.10 During the construction period, works will be carried out on weekdays between 6am to 5:30pm, and during night-time hours between 8pm and 6am Sunday to Thursday (Friday morning). There will be no working on Saturdays and Sundays and no night period on Fridays. Further information on the working hours is detailed at Table 4.2 of the **CEMP**.

Lighting

7.3.11 As recognised in the **CEMP** at section 4.2 and paragraphs 4.2.8 to 4.2.7, lighting can adversely affect nearby communities, as well as certain wildlife and protected species, including some that are afforded legal protection such as bats. For this reason, it is proposed that lighting of night-time works will be selected to be the minimum fit for purpose to provide lighting to ground areas, using directional mobile lighting rigs. This will limit any light spill beyond the airfield perimeter to protect nearby residential and wildlife areas.

7.3.12 Measures within the **CEMP** have been substantially informed by the work undertaken in preparation of the **ES**. For example, the **ES Biodiversity Chapter 12** confirms that the best practice guidance has informed the design of the lighting strategy required for the Proposed Development, in particular, by drawing on the joint guidance produced by the Bat Conservation Trust and the Institute of Lighting Professionals. Therefore, the lighting strategy, which is described in the **DAS** will incorporate measures to minimise lighting usage, minimise light spill, and use most appropriate wave lengths of light.

Avoidance of contamination arising from hazardous substances

7.3.13 Measures to prevent contamination arising from hazardous substances to reach soils, water courses and the wider environment during construction phase are set out at paragraph 4.3.3 of the **CEMP**.

Avoidance of contamination arising from soil entering a watercourse

7.3.14 Environmental controls would be introduced during the construction phase. The details of the arrangements will be agreed with the EA as part of the permitting process as stated at paragraph 4.3.4 of the **CEMP**.

Construction noise

7.3.15 The **CEMP** explains that the Applicant is committed to make the principal construction works subject to the process set out in Section 61 of the Control of Pollution Act whereby detailed working methods for individual phases of construction are submitted to the Borough Council for approval in order to ensure that noise is limited as far as reasonably practicable.

Traffic management on Western Perimeter Road

7.3.16 Traffic management measures are considered necessary to facilitate the construction of the noise barrier. A minimum of two work areas is proposed to limit disruption to traffic on Wright Way, POD T5 car park and the Western Perimeter Road. The **CEMP** at paragraphs 4.3.15 to 4.3.19 describes how a Traffic Management Plan will be required for the protection of construction workforce and travelling public.

Protected and endangered species

7.3.17 Paragraphs 4.3.20 and 4.3.21 of the **CEMP** detail the mitigation measures that will be implemented throughout the period of working in the vicinity of the Duke of Northumberland's River. As described in paragraph 1.62.4 of the **ES Biodiversity Chapter 12**, the design of the Proposed Development and the embedded environmental measures (for example, measures to protect nesting birds) are focused on avoiding impacts on important habitats, minimising potential for injury, killing, disturbance, and displacement of fauna, thereby ensuring that there is no risk of breach of the relevant legislation. In addition, the **ES Biodiversity Chapter 12** has informed the commitment to measures for the completion of pre-works checks for the presence of reptiles and nesting birds prior to vegetation clearance taking place and the development of a Precautionary Working Method Statement ('PWMS') for reptiles, bats, and otters.

Arboricultural considerations

7.3.18 Potential effects on trees and hedgerows from the construction phase of the noise barrier have been identified within the **ES Appendix 12.6 of the ES: Arboricultural Impact Assessment ('AIA')** (including Tree Removal and Protection Plan ('TRPP')) and in the **ES Chapter 12: Biodiversity**. According to paragraph 4.3.1 of the AIA, the noise barrier component of the Proposed Development would result in the removal of a total of ten arboricultural features including: seven low quality trees (T8, T10, T12, T13, T14, T15, and T16), one very low quality tree (T9), one moderate quality group (G17), and two low quality groups (G11 and G19).

7.3.19 Paragraphs 4.3.23 to 4.3.28 of the **CEMP** establish a construction exclusion zone to prevent above ground damage to arboricultural features. An **Arboricultural Method Statement ('AMS')** will be developed to cover the duration of demolition and construction with appropriate levels of periodic arboricultural supervision where work is undertaken near

trees. The AMS will also address the tree works, tree protection fencing, ground protection, and additional precautions outside the construction exclusion zone. It is proposed that the AMS is reviewed, and if necessary updated in line with paragraph 4.6.3 of the AIA and paragraph 4.3.40 of the **CEMP**.

7.3.20 Other mitigation measures to be used during construction will include the application of tree protection measures in accordance with British Standard 3998:2010 – Tree Work Recommendations. Some pruning in the form of crown lifting will be required as the proposed noise barrier will be taller than the current fence.

7.3.21 Paragraphs 4.3.29 to 4.3.32 of the **CEMP** are related to the mitigation measures proposed to prevent below ground impacts (i.e. potential for soil compaction and root damage). This is in line with the AIA and will comprise the establishment of a construction exclusion zone marked by a tree protection fence for the duration of demolition and construction. When access is needed, temporary ground protection measures will be implemented to prevent soil compaction and root damage. In relation to the impacts on roots due to the installation of fence posts, potential effects were considered negligible and therefore no further mitigation measures are proposed.

Compensation planting

7.3.22 Paragraphs 4.3.33 and 4.3.36 of the **CEMP** and section 4.5 of the **AIA** explain the proposed compensation planting of new trees either on site or nearby due to the removal of eight medium sized trees and approximately 112 linear meters of densely planted small trees/woody shrubs. Planting along the noise barrier would not be practical.

Noise mitigation measures

7.3.23 The next section includes details of Heathrow's existing noise mitigation measures, including a successful regime of noise management which has seen the noise footprint of the airport reduce significantly in recent years - a characteristic which is forecast to continue.

7.3.24 Heathrow has recently reviewed and updated its Noise Action Plan and, as part of that exercise, published a new Noise Insulation Scheme known as the Quieter Neighbourhood Support scheme (the QNS). As explained in the next section, whilst the QNS already exceeds government policy requirements, Heathrow intends to supplement it with additional, targeted mitigation to address the specific effects of easterly alternation.

7.3.25 The structure of Heads of Terms for a S106 agreement is set out at **Appendix 7**.

8. NOISE AND VIBRATION

8.1 Introduction

8.1.1 This Chapter provides an assessment of the Proposed Development against relevant planning policy tests relating to noise and vibration, drawing on **Chapter 7: Noise and Vibration of the ES**.

8.1.2 Again, it is important to recognise that the effect of the application is to redistribute, rather than increase aircraft noise, and to give effect to the Government's policy decision to do so more fairly.

8.1.3 Planning policy provides a context for the application but its principal role in this case is not to question the overall acceptability of the principle of the Proposed Development, which is established in policy. Rather the role of policy here is to ensure that the effects of the Proposed Development are suitably mitigated. It is in that context that the tests set by policy have an important role to play.

8.1.4 Relevant legislation, planning policy and related guidance is recorded extensively in Section 7.2 of **ES Chapter 7: Noise and Vibration** and used to guide the assessment of noise and vibration effects. Those policies most directly relevant to this Planning Statement are summarised below. Some passages have been emphasised in bold.

Table 6 – Principal planning and policy guidance tests

Document/reference	Policy tests
Noise Policy Statement for England (2010)[114]	The Noise Policy Statement for England (NPSE) sets out the Government's Noise Policy Vision to: "*Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.*" The aims of the policy are embedded in national planning policy and are expressed as follows: ***"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*** • ***Avoid significant adverse impacts on health and quality of life***

[114] Department for Environment, Food & Rural Affairs (2010). Policy paper Noise Policy statement for England. Available from https://www.gov.uk/government/publications/noise-policy-statement-for-england#:~:text=The%20Noise%20Policy%20Statement%20for%20England%20was%20published%20on%2015,through%20the%20management%20of%20noise.

Document/reference	Policy tests
	• ***Mitigate and minimise adverse impacts on health and quality of life*** • ***Where possible, contribute to the improvement of health and quality of life."*** These aims lie at the heart of national noise policy, and it is important to understand their meaning. As the NPSE states, its aims are to manage and control noise "*within the context of Government policy on sustainable development*". The NPSE sets out clearly what that means. First, guiding principles for sustainable development are set out in paragraph 1.8 and these include a strong, healthy and just society with equal opportunity for all. Importantly, in this context, paragraph 2.7 makes clear that noise is not the only relevant consideration: "*…the application of the NPSE should enable noise to be considered alongside other relevant issues and* ***not to be considered in isolation.*** *In the past, the wider benefits of a particular policy, development or other activity may not have been given adequate weight when assessing the noise implications*." In order to understand and apply the aims, the NPSE introduces two key concepts: *"**LOAEL** – Lowest Observed Adverse Effect Level - This is the level above which adverse effects on health and quality of life can be detected.* ***SOAEL** – Significant Observed Adverse Effect Level - This is the level above which significant adverse effects on health and quality of life occur."* **It follows, that, to meet the first aim of the NPSE, SOAEL must be avoided.** The NPSE then explains (at paragraph 2.24) that *"The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise negative effects on health and quality of life while also taking into account the guiding principles of sustainable development* (paragraph 1.8). ***This does not mean that such negative effects cannot occur."***

Document/reference	Policy tests
Adding Capacity at Heathrow: Decisions Following Consultation' DfT (2009)[115]	It was through this publication, following consultation, that the Government announced its decision to end the Cranford Agreement. *"The Secretary of State has therefore decided in the interests of equity to confirm the provisional view set out in the consultation document. Therefore,* ***the operating practice which implements the Cranford agreement should end as soon as practicably possible****."*
Aviation Policy Framework (2013)[116]	The APF sets out a framework for noise management at UK Airports. The APF explains the significance of the Government's responsibilities for airports regulated under the Civil Aviation Act 1982, as follows: *"3.10 For many years, Heathrow, Gatwick and Stansted Airports have been designated for these purposes, and we will continue to maintain their status.* ***These airports remain strategically important to the UK economy and we therefore consider that it is appropriate for the Government to take decisions on the right balance between noise controls and economic benefits****, reconciling the local and national strategic interests."* Paragraph 1.63 **confirms the government's policy decision to end the Cranford Agreement** and explains the reasons for that decision: "***To further improve operations and resilience at Heathrow we confirmed the ending of the Cranford agreement****. This is an informal but long-standing agreement not to use the northern runway for departures when the wind was in from the east (roughly 30% of the time).* ***This decision needs to be implemented by Heathrow Airport Ltd*** *and a planning application will shortly be submitted for the necessary changes to airport infrastructure.* ***Following implementation, noise will be distributed more fairly around the airport,*** *extending the benefits of runway alternation to communities under the flight paths during periods of easterly winds, and delivering*

[115] Department for Transport (2009). *Britain's Transport Infrastructure Adding Capacity at Heathrow: Decisions Following Consultation.* Available at http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/15_01_09decision_doc.pdf
[116] Department for Transport (2013). *Aviation Policy Framework.* [online] Available at: https://www.gov.uk/government/publications/aviation-policy-framework

Document/reference	Policy tests
	operational benefits by letting the airport operate consistently whether there are easterly or westerly winds." Paragraph 17 sets out the Government's *"**overall objective on noise is to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise**."* At paragraph 3.3 the Government sets out that it *"expects that future growth in aviation should ensure that benefits are shared between the aviation industry and local communities. This means that the industry must continue to reduce and mitigate noise as airport capacity grows."* In respect of **noise insulation and compensation** the APF states that: *"3.36 The Government continues to expect airport operators to offer households exposed to levels of noise of 69 dB LAeq,16h or more, assistance with the costs of moving.* *3.37 The Government also expects airport operators to **offer acoustic insulation to noise-sensitive buildings, such as schools and hospitals, exposed to levels of noise of 63 dB LAeq,16h or more**. Where acoustic insulation cannot provide an appropriate or cost-effective solution, alternative mitigation measures should be offered.* *3.38 If no such schemes already exist, airport operators should **consider financial assistance towards acoustic insulation for households**. Where compensation schemes have been in place for many years and there are few properties still eligible for compensation, airport operators should review their schemes to ensure they remain reasonable and proportionate.* *3.39 Where airport operators are considering developments which result in an increase in noise, they should review their compensation schemes to ensure that they offer appropriate compensation to those potentially affected. **As a minimum, the Government would expect airport operators to offer financial assistance towards acoustic insulation to residential properties which experience an increase in noise of 3dB or more which leaves them exposed to levels of noise of 63 dB $L_{Aeq,16h}$ or more**."* It should be noted that Paragraph 3.39 of the APF was amended by the Government's Consultation Response on UK Airspace Policy - A Framework for Balanced Decisions

Document/reference	Policy tests
	on the Design and Use of Airspace (2017)[117]. This amended paragraph 3.39 of the APF to **remove the 3 dB criteria,** resulting in a policy whereby Government expects airport operators to offer financial assistance towards the costs of acoustic insulation to residential properties that are exposed to levels of noise of 63 dB $L_{Aeq,16hr}$. As set out at paragraph 3.28 *"the Government expects airports to **make particular efforts to mitigate noise where changes are planned** which will adversely impact the noise environment. **This would be particularly relevant in the case of proposals for (…) changes to operational procedures** or where an increase in movements is expected which will have a noticeable impact on local communities. In these cases, it would be appropriate to consider new and innovative approaches such as noise envelopes **or provision of respite for communities already affected**."*
Air Navigation Guidance (2017)[118]	The Air Navigation Guidance 2017 (ANG17) provides guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and on airspace and noise management. For the purposes of this Planning Statement, it is relevant not least for its definition of respite: *"Noise Respite: The principle of noise respite is to provide planned and defined periods of perceptible noise relief to people living directly under a flight path."*
Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England (2018)[119]	The Airports National Policy Statement (ANPS) presents a series of policies which have effect for proposals for a new North West runway at Heathrow. The ANPS also sets policy for new runway capacity and infrastructure at airports in the South East of England.

[117] Department for Transport (2017). *UK Airspace Policy: A Framework for the Design and use of Airspace.* [online] Available at: https://www.gov.uk/government/publications/uk-airspace-policy-a-framework-for-the-design-and-use-of-airspace

[118] Department for Transport (2017). *Air Navigation Guidance 2017. Guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management. Moving Britain Ahead.* Available at https://assets.publishing.service.gov.uk/media/5f624adae90e072bbae22c2c/air-navigation-guidance-2017.pdf

[119] Department for Transport (2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Available at

Document/reference	Policy tests
	Paragraph 5.57 requires decision makers to have due regard to the NPSE. **Paragraph 5.68 replicates the aims of the NPSE as the principal policy tests for noise**. The ANPS advises at paragraph 3.58 that one of the Government's reasons for favouring Heathrow as the location for a new runway is its ability to offer respite to communities, whilst at paragraph 5.56 the ANPS confirms that: "***The Government also recognises that predictable periods of relief from aircraft noise (known as respite) are important for communities affected,"*** Consequently, at paragraph 5.61, the ANPS makes clear that*:* ***"The applicant should put forward plans for a runway alternation scheme that provides communities affected with predictable periods of respite."***
Aviation 2050: The Future of UK Aviation (2018)[120]	Aviation 2050 was a draft strategy document prepared by the Department for Transport for consultation in 2018. Aviation 2050 is not adopted policy but provides an indication of department thinking at that time on potential future noise policy changes, including in relation to noise insulation and compensation: *"The government is also:* • *proposing new measures to improve noise insulation schemes for existing properties, particularly where noise exposure may increase in the short term or to mitigate against sleep disturbance.* *Such schemes, while imposing costs on the industry, are an important element in giving impacted communities a fair deal. The government therefore proposes the following noise insulation measures:* • *to extend the noise insulation policy threshold beyond the current 63dB $L_{Aeq\ 16hr}$ contour to 60dB $L_{Aeq,16hr}$* • *to require all airports to review the effectiveness of existing schemes. This should include how effective*

https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

[120] Department for Transport (2018). *Aviation 2050 – the future of UK aviation.* [online] Available at: https://www.gov.uk/government/consultations/aviation-2050-the-future-of-uk-aviation

Document/reference	Policy tests
	the insulation is and whether other factors (such as ventilation) need to be considered, and also whether levels of contributions are affecting take-up • *the government or ICCAN to issue new guidance to airports on best practice for noise insulation schemes, to improve consistency* • *for airspace changes which lead to significantly increased overflight, to set a new minimum threshold of an increase of 3dB L_{Aeq}, which leaves a household in the 54dB $L_{Aeq,16hr}$ contour or above as a new eligibility criterion for assistance with noise insulation"* (note: whilst the consultation took place six years ago, these changes have not been confirmed in national policy)
Overarching aviation noise policy (2023)[121]	In March 2023 the Department for Transport published a policy paper on its Overarching Aviation Noise Policy. It is apparent from the policy that part of its purpose was to bring clarity to the meaning of the Government's noise objectives. *"The government's overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation's Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights."* *"The impact of aviation noise must be mitigated as much as is practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise."* *"In Aviation 2050 we consulted on setting a new objective "to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise." This was to bring national aviation noise policy in line with airspace policy updated in 2017."* Consultation responses had general support for focus on the total adverse effects, although some respondents highlighted

[121] Department for Transport (2023). Policy paper Overarching aviation noise policy. Available from https://www.gov.uk/government/publications/aviation-noise-policy-statement/overarching-aviation-noise-policy

Document/reference	Policy tests
	the potential ambiguity of "limit, and where possible, reduce", with some suggestions that policy should be to reduce aviation noise. We consider that "limit, and where possible reduce" remains appropriate wording. An overall reduction in total adverse effects is desirable, but in the context of sustainable growth an increase in total adverse effects may be offset by an increase in economic and consumer benefits. In circumstances where there is an increase in total adverse effects, "limit" would mean to mitigate and minimise adverse effects, in line with the Noise Policy Statement for England One of the overall objectives underpinning the Air Navigation Guidance 2017 is to *"emphasise that the environmental impact of aviation must be mitigated as much as is practicable and realistic to do so. Consultation responses suggested that including this in our overall policy would be beneficial. This complements the aim of limiting and where possible reducing the total adverse impacts, and we consider helps clarify that noise mitigation as well as noise reduction can contribute to reducing total adverse effects of noise."*
National Planning Policy Framework (2023)[122]	The NPPF sets out the Government's planning policies for sustainable development. In relation to noise it provides: *"180. Planning policies and decisions should contribute to and enhance the natural local environment by: …* • *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. and …."* Consistently with the NPSE, the NPPF states: *"191. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or*

[122] Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (2023). Policy paper National Planning Policy Framework. Available from https://www.gov.uk/government/publications/national-planning-policy-framework--2

Document/reference	Policy tests
	the wider area to impacts that could arise from the development. In doing so they should: • *mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development - and avoid noise giving rise to significant adverse impacts on health and the quality of life;"*
Planning Practice Guidance (PPG)[123]	The National Planning Practice Guidance (PPG), which supplements the National Planning Policy Framework (NPPF), incorporates Planning Practice Guidance – Noise (PPG-N). PPG-N, most recently updated in 2019, advises how the planning system can manage potential noise impacts in new development and draws upon the principles advocated in Noise Policy Statement for England (NPSE), providing guidance on how they can be implemented. The document advises how the effects of noise can be described in terms of perception and outcomes aligned to increasing effect levels. In addition, the PPG-N introduces a fourth: 'Unacceptable Adverse Effect Level' (UAEL), which is described as a level at which *"noise exposure would cause extensive and sustained adverse changes in behaviour and / or health without an ability to mitigate the effect of the noise. The impacts on health and quality of life are such that regardless of the benefits of the activity causing the noise, this situation should be avoided*." The Guidance advises that due to the subjective nature of noise *"... there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any situation"*. PPG-N also provides guidance in terms of how adverse effects of noise can be mitigated. The PPG-N is summarised in a "noise exposure hierarchy" as presented below.

[123] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available at https://www.gov.uk/guidance/air-quality--3

Document/reference	Policy tests

Perception	Examples of outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

Local Policies	
The London Plan (2021)[124]	Policy T8 (Aviation) part B requires *"the environmental and health impacts of aviation must be fully acknowledged and **aviation-related development proposals should include mitigation measures that fully meet their external and environmental costs, particularly in respect of noise** (…)."* Parts C and D apply to applications for airport expansion. More relevant to this application is Part E of the policy, which requires that *"development proposals that would lead to changes in airport operations (…) must take full account of their environmental impacts and the views of affected communities."* Part F of the policy requires development proposals to "*make better use of existing airport capacity (…)."*

[124] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

Document/reference	Policy tests
	Policy D13 is the Agent of Change policy places responsibility for mitigating noise effects on any new noise, sensitive development. Part B of the policy makes clear that "*development should be designed to ensure that established noise and other nuisance-generating uses remain viable and can continue or grow without unreasonable restrictions being placed on them*."
Hillingdon Local Plan: Part 1 Strategic Policies (2012)[125]	The Local Plan advises that Heathrow is located in the south of the Borough and has an effect on the noise environment in this area in terms of both road traffic and aircraft noise. Local Plan environmental improvement policies EM1 and EM8 support "***the need to control, reduce and mitigate noise, especially around Heathrow*** *and the major road network*". Part 1 of the Local Plan sets out the Council's position on Heathrow operations which is to oppose *"any further capacity increase at Heathrow, including mixed mode and any further runway expansion"*. The Local Plan sets out the Council's commitment to taking a *"common sense approach to dealing with Heathrow Airport"* and that the policies seek to maximise the economic benefits of Heathrow, reduce any negative environmental impacts and secure improvements for local communities. The Vision for Hillingdon 2026[126] acknowledges that *"Hillingdon has continued to prosper from the presence of Heathrow"* in an economic sense with the airport providing access to jobs and links to training whilst securing reductions in noise amongst other benefits have been achieved for the local communities. Part 1 of the Local Plan sets out strategic objectives with respect to the Heathrow Opportunity Area including objective SO23: *"develop and implement a strategy for the Heathrow Opportunity Area in order to ensure that local people benefit from economic and employment growth and* ***social and environmental improvements including reduction in noise*** *and poor air quality"*. The objective is supported by

[125] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf

[126] London Borough of Hillingdon (2010). *A vision for 2026: Local Development Framework Core Strategy consultation draft June 2010*. [online] Available at: https://modgov.hillingdon.gov.uk/documents/s5480/A%20vision%20for%202026%20-%20core%20strategy.pdf

Document/reference	Policy tests
	Policy E3 through which the Council will prepare a Local Development Document in respect of the Heathrow area in consultation with the London Borough of Hounslow and the Greater London Authority (GLA).
Hillingdon Local Plan: Part 2 Development Management Policies (2020) [127]	Local Plan: Part 2 sets out policies on the Safe Operation of Airports (**Policy DMAV1**) including ensuring that sensitive uses are not located in areas significantly affected by aircraft noise without acceptable mitigation measures, and Heathrow Airport (**Policy DMAV2**) which considers environmental impacts of development proposals within the Heathrow Airport boundary. **Policy DMT 1** (Managing transport impacts) requires "*development proposals to (…) address its transport impacts in a sustainable manner."* Paragraph v) of the policy requires developments *"to have no significant adverse transport or associated (…) noise impacts on the local and wider environment, particularly on the strategic road network."* Policy DMT 2 (Highways impacts) iii) requires development proposals to *"ensure that they do not contribute to the deterioration of (…) noise or local amenity or safety of all road users and residents."*

8.1.5 Noise and vibration effects need to be considered in relation to air noise, ground noise, construction noise and the effects of vibration. These are considered in turn in this chapter, starting with air noise.

8.1.6 For each category of noise, this chapter follows the following sequence:

- assessed affects
- mitigation
- assessment against policy.

[127] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available at https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570

8.2 Air Noise

Assessed effects- residential receptors

8.2.1 The air noise effects of the Proposed Development are set out from Section 7.8.56 of the ES and also in the dedicated **Air Noise Appendix 7.5**. The assessment is supported by a set of Figures (Figures at 4.7.5).

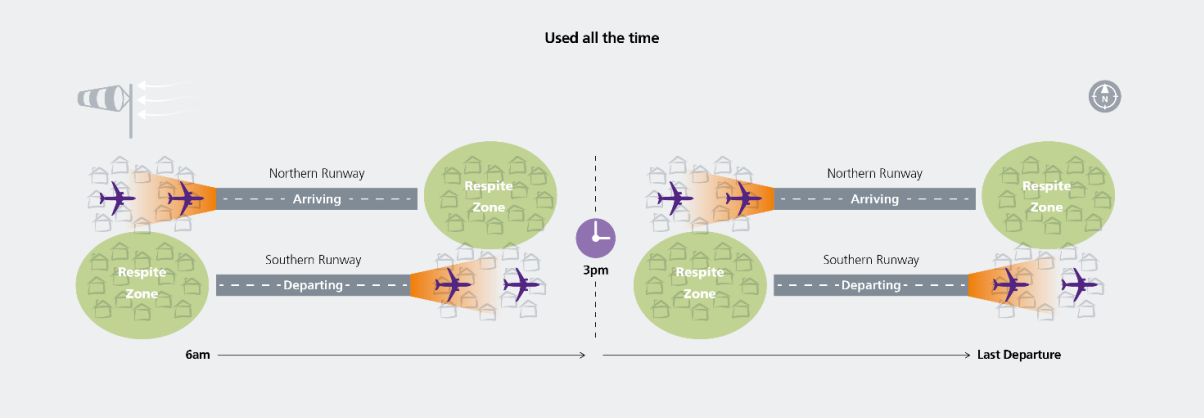
8.2.2 As flight paths, aircraft numbers or other airport operations would not change, the effect of enabling easterly alternation is to bring about relatively small alterations to Heathrow's overall noise footprint.

8.2.3 Based on average observed conditions taken over 20 years, for 79% of the time in the 92 day summer period (and for 76% of the time across the whole year), the airport is forecast to be running on westerly operations and the application proposals would make no difference to the noise environment around Heathrow.[128]

8.2.4 As is the case today, therefore, easterly operations are forecast to be likely for 21% of the summer (and 26% of the whole year).

8.2.5 Without alternation (i.e. as at today) the current pattern of daily operations on easterlies is shown below (see **Figure 20**).

Figure 20 – Current pattern of daily operations (without alternation)



8.2.6 It is particularly notable that, during easterly operations, communities to the west of the northern runway experience continuous overflying from landings, whilst communities to the east of the southern runway experience continuous overflying from take offs.

8.2.7 The difference proposed by the application is that, during easterly conditions, operations would swap in the middle of the day between landings on one runway and take-offs on the other. The **Figure 21** below illustrates the proposed change in operations.

[128] This brings precision to the assessment of environmental impacts, rather than using the generalised summary set out earlier that the high level average is 70:30.

Figure 21 – Proposed easterly operations with runway alternation

8.2.8 If the application is consented, respite can finally be provided to those communities who experience continuous overflying during easterly operations from landings (for instance in Colnbrook and Windsor) and from take-offs (in Hatton Cross, Feltham and parts of Hounslow) and those communities would receive a planned break in operations for half the day. Since the Cranford Agreement became operational in the 1950s, those communities have had no relief from continuous daytime (and more limited nighttime)[129] overflying when the wind is from the east.

8.2.9 Communities that have been protected by the Cranford Agreement from the effects of take-offs during easterly operations (Cranford and locations east of the northern runway) and the effects of landings (Stanwell Moor and Old Windsor and communities west of the southern runway) and currently have very limited overflights during easterlies would experience those effects, for half the day when the airport operates on easterlies, i.e. for about 10% of the summer and 12% of the year.

8.2.10 The ES assessment forecasts the population affected at levels above the Lowest Observed *Adverse* Effect Level (LOAEL) and above or below the Significant Observed Adverse Effect Level (SOAEL). These terms derive from the Noise Policy Statement for England and are explained in the policy **Table 6** above**.** For the purposes of the assessment, LOAEL is defined at 51dB Leq at daytime (45dB at night) and SOAEL is defined at 63dB for daytime and 55 dB at night.

[129] Heathrow does not schedule departures between 2300 and 0600.

Overall effects

8.2.11 **Table 7** below has been reproduced from **Chapter 7: Noise and Vibration of the ES** and it summarises the overall effects (on the residential population) of the redistribution of air noise around the airport expressed in standard $L_{Aeq,16hr}$ noise metrics, i.e. showing the effect across the year during the daytime.

Table 7 - Change in Daytime Noise Exposure due to the Proposed Development – Standard Mode (Table 7.43 ES Chapter Noise and Vibration)

Standard Mode, 79%W:21%E, Population (thousands)											
$L_{Aeq,16hr}$	Reduction in Noise Exposure					No Change	Increase in Exposure				
Exposure With Development	Major > 6.0	Moderate 3.0 – 5.9	Minor 2.0 – 2.9	Slight 1.0 – 1.9	Negligible 0.1 – 0.9	< 0.1 increase or decrease	Negligible 0.1 – 0.9	Slight 1.0 – 1.9	Minor 2.0 – 2.9	Moderate 3.0 – 5.9	Major > 6.0
Lowest Observed Adverse Effect Level (LOAEL)											
51 dB – 54 dB	0	0	0	35.7	33.4	438.1	19.4	3	3	12.1	0
"Approximate Onset of Significant Community Annoyance"											
54 dB – 57 dB	0	0	0	22.4	19.2	151	17.1	3	1.5	1.4	0
57 dB – 60 dB	0	0	0	2.8	10.4	59.6	15.4	4.6	1.3	1.1	0
60 dB – 63 dB	0	0	0	0.9	7.7	22.3	21.2	3.2	1.4	0.9	0
Significant Observed Adverse Effect Level (SOAEL)											
63 dB – 66 dB	0	0	0	0.2	4.7	6.9	11.6	2.7	0.1	0	0
66 dB – 69 dB	0	0	0	0.1	0.8	0.3	2.9	0.3	0	0	0
> 69 dB	0	0	0	0	0.4	0	0.9	0	0	0	0
Totals	**Total Experience Beneficial Magnitude of Change**						**Total Experiencing Adverse Magnitude of Change**				
	0	0	0	62.2	76.4	678.2	88.5	16.8	7.3	15.4	0
	Beneficial Changes (> 1 dB)						**Adverse Changes (> 1 dB)**				
	62.2						39.6				

Eligibility to Home Relocation Assistance Scheme (HRAS) or Quieter Neighbourhood Scheme (QNS)
Eligibility to Quieter Neighbourhood Scheme (QNS)
Eligibility to Easterly Alternation Noise Insulation Scheme (Contribution of up to £12,000)
Eligibility to Easterly Alternation Noise Insulation Scheme (Fixed Contribution of £3,000)
Adverse Likely Significant Effects
Beneficial Likely Significant Effects

8.2.12 It can be seen that the changes are relatively small in scale and, in particular:

- as intended, overall there are more people that benefit from a reduction in air noise of at least 1 dB (62,200), than are adversely affected by an increase of 1 or more dB (39,600); and
- the levels of change are generally greater for those affected by an increase in noise; however, as the **Table 7** shows, the increases are generally greater at the lower levels of noise (with changes of 3 dB or more largely concentrated in the 51-54 dB band). Of the 15,400 people who would experience an increase of 3 dB or more, 12,100 of these would have resulting noise levels of less that 54 dB $L_{Aeq,16hr}$ – i.e. below the level which equates to the approximate onset of significant community annoyance.

8.2.13 **Table 8** below provides the same information for night time effects.

Table 8 – Change in Night-time Noise Exposure due to the Proposed Development – Standard Mode (Table 7.45 ES Chapter Noise and Vibration)

Standard Mode, 76%W:24%E, Population (thousands)											
$L_{Aeq,8hr}$	Reduction in Noise Exposure					No Change	Increase in Exposure				
Exposure With Development	Major > 6.0	Moderate 3.0 – 5.9	Minor 2.0 – 2.9	Slight 1.0 – 1.9	Negligible 0.1 – 0.9	< 0.1 increase or decrease	Negligible 0.1 – 0.9	Slight 1.0 – 1.9	Minor 2.0 – 2.9	Moderate 3.0 – 5.9	Major > 6.0
Lowest Observed Adverse Effect Level (LOAEL)											
45 – 48 dB	0.0	0.0	0.0	18.5	17.4	304.0	10.9	3.2	0.2	0.0	0.0
48 – 51 dB	0.0	0.0	0.0	9.2	8.0	131.7	7.5	4.0	0.5	0.0	0.0
51 – 55 dB	0.0	0.0	0.0	1.1	2.6	106.6	15.2	3.7	0.3	0.0	0.0
Significant Observed Adverse Effect Level (SOAEL)											
55 – 57 dB	0.0	0.0	0.0	0.2	0.4	22.4	2.4	0.2	0.0	0.0	0.0
57 – 60 dB	0.0	0.0	0.0	0.0	0.6	21.6	2.4	0.1	0.0	0.0	0.0
60 – 63 dB	0.0	0.0	0.0	0.0	0.0	1.2	2.1	0.1	0.0	0.0	0.0
> 63 dB	0.0	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0	0.0	0.0
Totals	**Total Experience Beneficial Magnitude of Change**						**Total Experiencing Adverse Magnitude of Change**				
	0.0	0.0	0.0	29.1	29.3	587.5	41.0	11.2	1.0	0.0	0.0
	Beneficial Changes (> 1 dB)						**Adverse Changes (> 1 dB)**				
	29,100						12,200				

Eligibility to Quieter Neighbourhood Scheme (QNS) Residential Insulation Scheme (RIS)
Adverse Likely Significant Effects
Beneficial Likely Significant Effects

8.2.14 Again, more people benefit from a reduction in noise (29,100 benefit by 1 dB or more) compared with those that experience an increase in noise (12,200 are adversely affected by 1 dB or more).

8.2.15 The changes in night time effects are more limited, with no changes of 2 dB or more. Heathrow does not schedule departures between 2300 and 0600. The principal changes in the defined night period, therefore, arise in the 0600-0700 period and, particularly in the period from c.0620 when there is a noticeable increase in departures.

8.2.16 The nature of these changes is very similar to the effect anticipated by the Government when it consulted and agreed to the removal of the Cranford Agreement in 2009 and 2010. Those anticipated effects are reproduced earlier (in **Table 2** of this Planning Statement). They showed a net reduction in those exposed to noise levels of 57 dB or less but an increase in exposure in all noise bands above 60 dB. Aware of these effects, the Government nevertheless decided it was:

> *"…preferable to benefit large numbers of people by removing them from the 57 dBA Leq contour, at the expense of exposing smaller numbers of people to increased noise at higher levels."* (see paragraph 2.3.6)

8.2.17 The pattern of effects is also very similar to that found by the previous application proposals.[130] In that case the Inspector concluded:

> *"1118. It is nonetheless true to say that ES Table 6.12 shows that around 36,100 people will experience beneficial effects compared to only around 18,550 suffering adverse effects. Although almost 34,000 of those people experiencing beneficial effects would only see a*

[130] Thornely-Taylor, Rupert (2015). Section 6.2 of Proof of Evidence – Noise Enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport. Appeal Ref. APP/R5510/A/14/2225774 Doc Ref. HAL/RTT/P/01. Available at https://www.ruperttaylor.com/HALRTTP01.pdf

reduction of between 1 and 2dB in the LAeq16hr levels – which in practice may or may not be noticeable – ***there would clearly be a rebalancing of the noise effects around the airport and for some people, the respite newly experienced on easterly operations would no doubt be a welcome benefit****."* (emphasis added)

8.2.18 The Secretaries of State agreed and found that the public interest benefits (with appropriate mitigation) of ending the Cranford Agreement carried "***very substantial weight***" (decision letter paragraph 18).

8.2.19 The assessment of effects in **Chapter 7: Noise and Vibration of the ES** considers the effects of easterly alternation against a range of noise metrics. Successive sections of the **ES Chapter: Noise and Vibration** consider the effects of the Proposed Development under a number of headings, namely: the extent of overflying with easterly alternation, the availability of respite, and an assessment of significant effects. This Section of the Planning Statement follows the same sequence before considering the consequence of the assessments against the terms of planning policy.

Overflying

8.2.20 In order to assess the change in communities overflown with easterly alternation, a helpful metric is called "N65", which describes the number of overflights experienced by a receptor at maximum noise levels of 65 dB L_{ASmax} or more. This N metric is favoured by some who are concerned that the standard Leq-based metrics may not fully represent noise effects because it averages them over the day (or night). The N65 metric provides a guide to the number of noise events and overflights experienced by communities. The assessment presents this metric with and without the Proposed Development in 2028 for a busy easterly day. This is shown in ES Figures 7.5.19 to 7.5.21, which map the changes in N65 events during an easterly day due to the Proposed Development.

8.2.21 The change in the frequency of N65 events during easterly operations can be summarised as follows:

Table 9 - Changes in the population (thousands) affected by the number of N65 events in 2028 during a busy easterly day

N65 Rate	2028 without Proposed Development	2028 with Proposed Development	Change in Population due to Proposed Development
≥ 5	1317.1	1417.0	+99.9
≥ 10	970.7	1068.2	+97.5
≥ 20	728.6	813.6	+85.0
≥ 50	464.0	539.9	+75.9
≥ 100	380.2	430.7	+50.5
≥ 200	253.2	240.9	-12.3
≥ 300	111.2	125.9	+14.7
≥ 400	75.1	41.0	-34.1

N65 Rate	2028 without Proposed Development	2028 with Proposed Development	Change in Population due to Proposed Development
≥ 500	61.4	18.6	-42.8
≥ 600	50.7	6.4	-44.3

8.2.22 The assessment is a good way of showing the equity of redistributing noise more evenly around the airport. The effect of the Proposed Development is to significantly reduce the population exposed to higher levels of overflights (more than 400, 500 and 600 events during a busy easterly day) as overflights would no longer be as concentrated over specific communities. There would be an increase for communities affected by lower frequencies of overflying but a reduction for those affected by much higher levels. This demonstrates the more equitable distribution of flights made possible by easterly alternation. By reference to ES Figure 7.5.19, it is clear that the reduction in intensity over communities east of the southern runway or west of the northern runway is particularly marked.

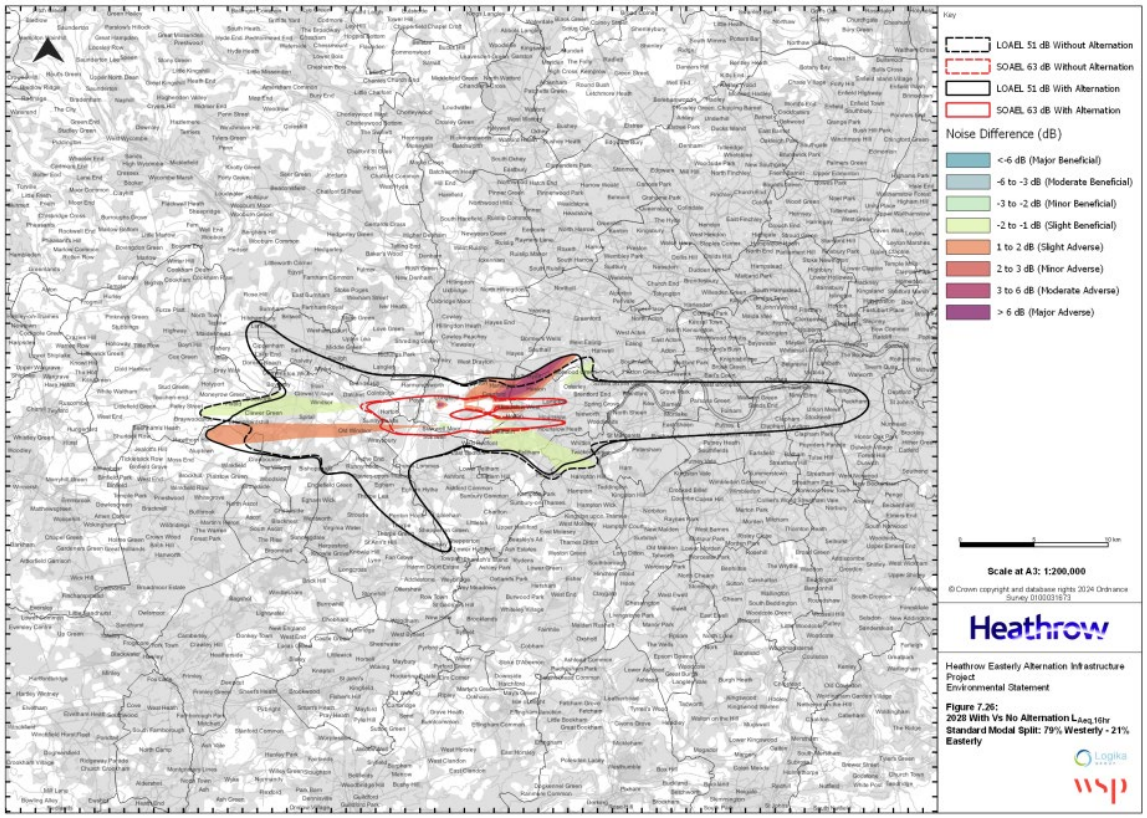
Respite

8.2.23 Critically, the application would also achieve its purpose, to bring greater equity to the distribution of relief from noise and overflying so that, for the first time since the imposition of the Cranford Agreement in the 1950s, communities under flight paths would be able to receive respite for half the day, when the airport is operating on easterlies as well as on westerlies. ES Figure 7.5.22 and Figure 7.5.24 shows that, with the Proposed Development, locations either side of the airport are forecast to receive planned respite during easterly and westerly operations. By contrast, ES Figure 7.5.25 shows the availability of planned respite without the proposed development, which occurs during westerly operations alone.

Likely significant effects

8.2.24 **Tables 7** and **8** above summarise the overall air noise effects by different categories of noise exposure. ES Figure 7.5.26 illustrates the location of changes in summer average noise exposure levels (both positive and negative) that would be caused by easterly alternation.

Figure 22 – ES Chapter Noise and Vibrations – 2028 with vs No Alternation LAeq,16hr Standard Model Split: 79% Westerly – 21% Easterly



8.2.25 As anticipated, the Figure shows noise reductions in communities west of the northern runway and east of the southern runway. It also shows increased noise levels to the south west in the vicinity of Stanwell Moor and to the north west of the runway near Cranford and further north west into North Hyde (see **Figure 22**).

8.2.26 **ES Chapter 7: Noise and Vibration** at Table 7.21 explains that, for the purposes of the ES, significant effects are defined as:

- areas subject to a change in 3dB or more where the resulting noise level is above LOAEL; and
- areas subject to a change of 1dB or more where the resulting noise level is above 63dB $L_{Aeq\ 16hr}$, i.e. above SOAEL.

8.2.27 Concentrating only on adverse effects, **Tables 7** and **8** show that there are 15,500 people forecast to experience a daytime increase of 3 dB or more in the 51 dB to 54 dB contour and 3,400 in the 54 dB to 63 dB contour. 3,100 people are forecast to experience and increase of at least 1 dB or more at noise levels above 63 dB $L_{Aeq,16hr}$. At night 400 people are forecast to experience significant effects. In total this equates to 18,600 significantly affected.

8.2.28 The ES reviews the characteristics of the locations subject to significant effects. For the large majority these areas experience relatively low levels of noise impact. 12,100 fall outside the 54dB $L_{Aeq,16hr}$ contour, which is defined as the approximate onset of significant community annoyance.

8.2.29 3,400 lie above the 54 dB contour but outside the 63 dB $L_{Aeq,16hr}$ contour, which is the level at which policy expects airports to contribute to noise insulation.

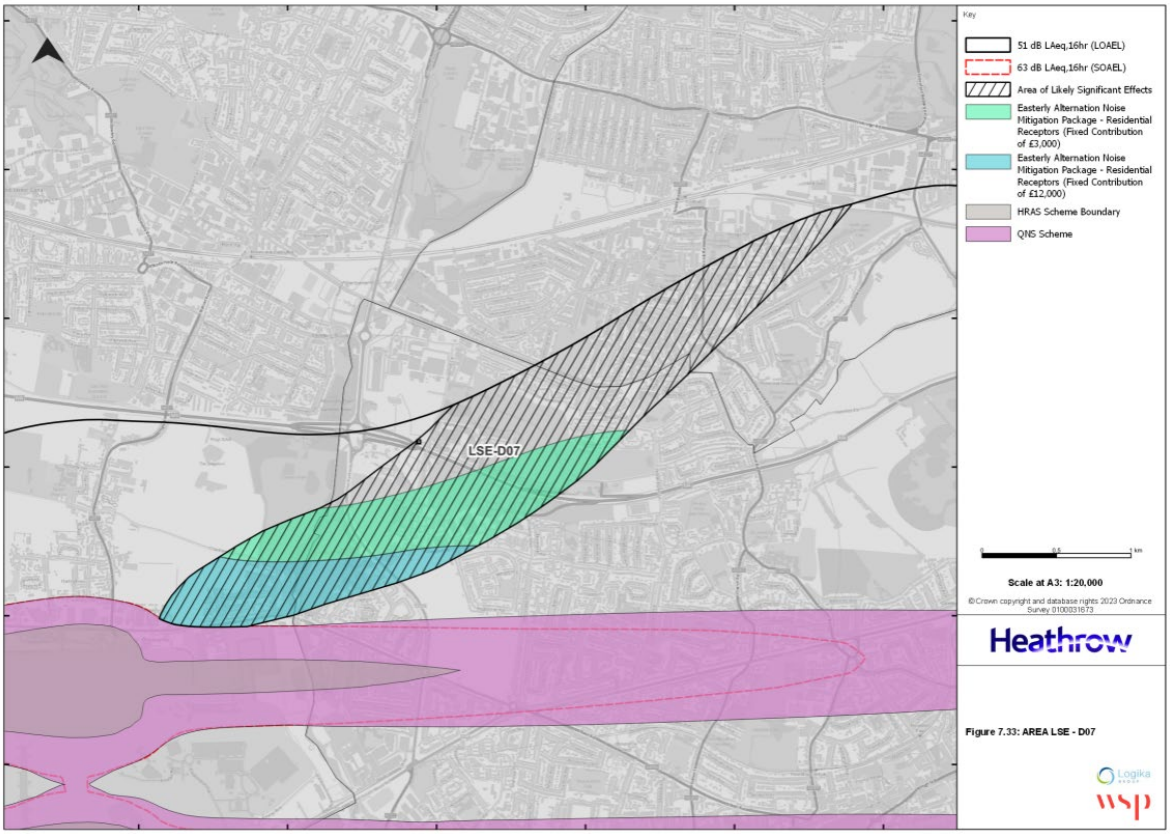
8.2.30 3,100 people live within the 63 dB contour and are forecast to experience adverse likely significant effects. For 3,000 of these, however, the change in noise is forecast to be less than 2 dB.

8.2.31 Each affected property would experience periods of planned predictable respite. Mitigation proposals are discussed further below.

8.2.32 The other area highlighted by the assessment is the area which runs up from Cranford to North Hyde and Southall in Ealing (referred to in the assessment as LSE-D07) which is shown in detail at ES Figure 7.5.33, an extract from which is shown below as **Figure 23**. Here the area overflown by a designated flightpath (09L ULTIB/BPK) that is currently rarely used (as a result of the Cranford Agreement) and the area is not directly in line with the runway, so it is not affected by arrivals. The area immediately to the east of it is affected by overflights from take offs from the southern runway, which turn north.

8.2.33 The flightpath ULTIB/BPK would be used routinely during easterly alternation and the area would be subject to a change in daytime noise exposure levels of up to 3 dB to 5.9dB.

Figure 23 – Area that would be affected by the increased use of flightpath ULTIB/BPK



8.2.34 As a result of that area not being currently overflown, the change in noise levels is more significant (between 3 dB and 5.9 dB) but flying there would only take place during easterly operations and only then for 50% of the time due to alternation – i.e. the area would be affected 10% to 14% of the time on average, meaning that, following the introduction of

easterly alternation, the summer or year round noise levels would not reach SOAEL and the area would not be eligible for Heathrow's existing noise insulation schemes.

Assessed effects - non-residential receptors

8.2.35 **ES Chapter 7: Noise and Vibration** and its more detailed Air Noise appendix (**Appendix 7.5 Air Noise**) contain a comprehensive assessment of the air noise effects of the Proposed Development on a range of non-residential premises. As with residential receptors, there is a balance of effects, with many premises forecast to benefit from relatively small noise reductions and the benefit of respite but many others also forecast to be subject to adverse changes in noise. The overall picture is similar to that for residential receptors, with more premises benefiting from a noise reduction with easterly alternation than adversely affected but with those adversely affected often subject to a greater level of change. For those properties, however, the majority would be subject to lower levels of noise, i.e. below 63 dB.

8.2.36 To ensure a comprehensive assessment, minimum thresholds for different types of non-residential premises were used to determine the study area and a screening criteria of a 1 dB change was used to ensure that no premises were missed, although the forecast changes are again relatively small in scale. Offices, hotels and commercial premises are included in the assessment even though they may be less likely to be susceptible to adverse effects from aircraft noise than certain community uses and many will have been constructed to specifications which anticipate aircraft noise.

8.2.37 Significance criteria were defined in a similar way to those used for residential receptors – i.e. a change of 3 dB or more where noise levels with easterly alternation are forecast to be less than 63dB $L_{Aeq,16hr}$ and more than 1dB above a level of 63 dB. Where appropriate, other noise metrics, contextual information and technical guidance has been used determine whether a significant effect is likely to occur.

8.2.38 For the purposes of this Planning Statement a summary of the outcome of the assessment is set out below.

8.2.39 The outcome of the assessment of air noise effects on non-residential receptors is that significant adverse effects are concluded for the following properties:

- Heathrow Jamia Masjid, Park Lane, Cranford, TW5 9RW
- Holy Angels Anglican Church, High Street, Cranford, TW5 9RG
- St Christopher Roman Catholic Church, High Street, Cranford, TW5 9RG
- Cranford Memorial Hall; High Street, Cranford, TW5 9RQ
- Cranford Junior School, Woodfield Road, Cranford, TW4 6ND
- Cranford Infant and Nursery School, Berkeley Avenue, Cranford, TW4 6LB
- Khosla House, Park Lane, Cranford, TW5 9WA
- The Cedars Primary School, High Street, Cranford, TW5 9RU
- Cranford Community College, High Street, Cranford, TW5 9PD.

Assessed effects - open spaces

8.2.40 Again, a bespoke approach has been taken to recognise the sensitivity of open spaces to the impact of increased (or reduced) overflights and changes in the noise environment. The methodology is explained in ES Table 7.24.

8.2.41 Changes of 3 – 5 dB $L_{Aeq,16hr}$ in summer average noise exposure are taken as an indicator of potential significance and regard is also had to the N65 metric, which measures the number of aircraft noise events of greater than 65 dB L_{ASmax}. The ES explains that a change of 5 dB is taken to represent a clear significant adverse effect on amenity in these spaces. The assessment is summarised in ES Section 7.8, which provides maps of the affected parks and open spaces, reporting the degree of forecast change across each park in terms of L_{Aeq}.

8.2.42 Significant adverse effects on amenity are concluded for three parks, which adjoin each other in the north east quadrant and which would be affected by the regular use (on easterlies) of flightpath 09L ULTIB/BPK when aircraft head north east on departures from the northern runway. Those parks are:

- Avenue Park, Hounslow.
- Berkeley Meadows, Hillingdon.
- Cranford Park, Hillingdon.

Mitigation

8.2.43 **Chapter 7: Noise and Vibration of the ES** at **Appendix 7.2 Noise Management and Mitigation at Heathrow Airport** describes the wide range of measures that are already in place at Heathrow to limit and mitigate the effects of air noise at the airport. Over the years, combined with enhancements in engine technology, these have been highly successful in reducing Heathrow's noise footprint. This is highlighted in **Appendix 7.3 Noise and Vibration Baseline Conditions** which highlights the decreasing size of Heathrow's daytime noise contours since 1999.

8.2.44 These trends in quieter aircraft are forecast to continue and ES Table 7.40 shows that, at 2028, the total population (and area of land) is forecast to be smaller for every noise contour than it was in 2019, with or without the Proposed Development. For example, the area of the 54 dB $L_{Aeq,16hr}$ contour is forecast to shrink from 156 km sq in 2019 to 127 km sq in 2028 and the population affected by 54 dB or more noise is forecast to fall from 493,700 in 2019 to less than 416,000 in 2028, with or without easterly alternation (which also shows how very small in overall terms the effect of easterly alternation would be).

8.2.45 Heathrow is a "designated" airport under the Civil Aviation Act 1982, which means that its noise performance is regulated by the Secretary of State, who has a range of powers and duties to limit and abate noise at the airport where necessary. Under the Environmental Noise (England) Regulations (2006) (as amended), Heathrow must also prepare and submit a Noise Action Plan to the Department for Environment, Food and Rural Affairs (Defra)

every 5 years. Heathrow's current Noise Action Plan was adopted by the Secretary of State for (Defra) in May 2024 and covers the period 2024 – 2028.[131]

8.2.46 The Noise Action Plan records and regulates a large number of measures which are taken and operated by Heathrow to limit noise as far as practical. **ES Appendix 7.2 Noise Management and Mitigation at Heathrow Airport** sets out the full detail of these.

8.2.47 The Noise Action Plan responds to an action which was committed in the previous Noise Action Plan to update Heathrow's noise insulation scheme, and its recent endorsement by Government means that the Noise Action Plan in general and the noise insulation scheme in particular can be regarded as consistent with current government policy.

8.2.48 Details of Heathrow's previous Noise Insulation Scheme (now referred to as the Legacy Scheme) and of the new Quiet Neighbourhood Scheme (or QNS) are set out in **ES Appendix 7.2 Noise Management and Mitigation at Heathrow Airport**. The principal characteristics of the Legacy and QNS schemes are summarised, however, in the following Table (see **Table 10**).

Table 10 – Principal characteristics of the Legacy and QNS schemes

Category	Legacy scheme	QNS
Residential	Between 2017 and 2022, Heathrow ran its Quieter Homes Initiative which provided the full costs of glazing and ventilation measures along with upgrade ceiling over-boarding in habitable rooms for eligible properties, based on a 2011 69 dB $L_{Aeq,16hr}$ contour. The contour is broadly equivalent to 66 - 67 dB in 2028 with or without Easterly Alternation.	Eligibility is based on a shared eligibility contour. This is comprised of a composite of four discrete contours or aircraft noise footprints anytime 2026 forecast 63 $dBL_{Aeq,16hr}$ contour (SOAEL); • Night-time 2026 forecast 55 $dBL_{Aeq,8hr}$ contour (SOAEL); • dBA SEL for the noisiest scheduled aircraft arriving before 6:00am (Airbus A380-800); and • The footprint of calculated probability of more than 1 additional aircraft noise awakening night based on aircraft operating between 04:30 and 06:00hrs. The eligibility boundary for the schemes is not fixed at the outset (unlike Heathrow's legacy schemes) but will remain dynamic to reflect the

[131] Heathrow (2023). Noise Action Plan 2024-2028 Consultation Document. Available at https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/about/consultation/Heathrow_Noise_Action_Plan_2024-2028-Consultation.pdf

Category	Legacy scheme	QNS
		changes (and anticipated improvements) in noise exposure over time. The noise insulation costs for residential schemes are 100% funded by Heathrow, subject to a maximum expenditure limit of £34,000 per dwelling.
Community buildings	Heathrow's legacy Community Buildings Noise Insulation Scheme applied to noise sensitive community buildings that fall within the 2019 63dB$L_{Aeq,16hr}$ noise contour. 100% of the costs for the installation of high specification replacement windows or secondary glazing has been provided in eligible rooms along with the installation of overheating avoidance measures such as solar film and acoustically attenuated ventilation systems.	The criteria are aligned to the SOAEL for daytime: (2026) 63 dB$L_{Aeq,16hr}$. The scheme provides 100% of the cost of installation of high specification replacement windows or secondary glazing in eligible rooms which for the purpose of the schemes include: • Schools: classrooms and other learning areas • Nursing homes: bedrooms and communal lounges Where acoustic insulation will not provide an appropriate or cost-effective solution, alternative mitigating measures could be considered by the Prioritisation Panel. The scheme also includes the installation of overheating avoidance measures (such as solar film) or acoustically attenuated ventilation systems in certain eligible buildings, predominantly schools.
Home relocation assistance	Heathrow's legacy Home Relocation Assistance Scheme was available for properties that fall within Heathrow's 2019 69dB$L_{Aeq\ 16hr}$ noise contour, and residents who have been living in the property before 31 December 2022, this scheme	The same but with an uplifted contribution towards the costs of relocating.

Category	Legacy scheme	QNS
	provided eligible homeowners with financial assistance with the costs of moving away from areas of high levels of airport noise. The scheme is currently capped at £20,000 per home.	

8.2.49 To assist with the delivery of the QNS, Heathrow has established a Prioritisation Panel which is comprised of independent stakeholder organisations and experts. These include:

- the Council for the Independent Scrutiny of Heathrow Airport (CISHA);
- Heathrow Association for the Control of Aircraft Noise (HACAN);
- Heathrow Strategic Planning Group (HSPG);
- Heathrow Airline Operators Committee (AOC); and
- Noise and Health Experts.

8.2.50 The aim of the Prioritisation Panel is to provide oversight on how the QNS will be delivered. This includes the identification of 'zones' around the Airport for a phased roll out of the QNS. The objective of a prioritised phased roll out of the QNS is to:

- ensure that the delivery programme for the QNS provides the quality experiences that residents and local communities expect; and
- prioritise those in the highest noise areas and roll out the delivery for dwellings and community buildings within the eligibility areas based on UK noise policy on an area by area basis.

8.2.51 The role of the Prioritisation Panel is also to consider any special cases which may arise and to help address disputes. Longford and Stanwell Moor have been identified as communities where the roll out of the QNS is being prioritised.

8.2.52 Both schemes, and particularly the QNS, are more generous than the equivalent noise insulation that was available and offered at the time of the previous Cranford application which was approved in 2017. That scheme was only available to properties exposed to noise levels of more than 63 dB $L_{Aeq,16hr}$ where this was caused by an increase in noise of 3 dB or more.[132] The noise insulation cost was also limited to £2,100 per habitable room.

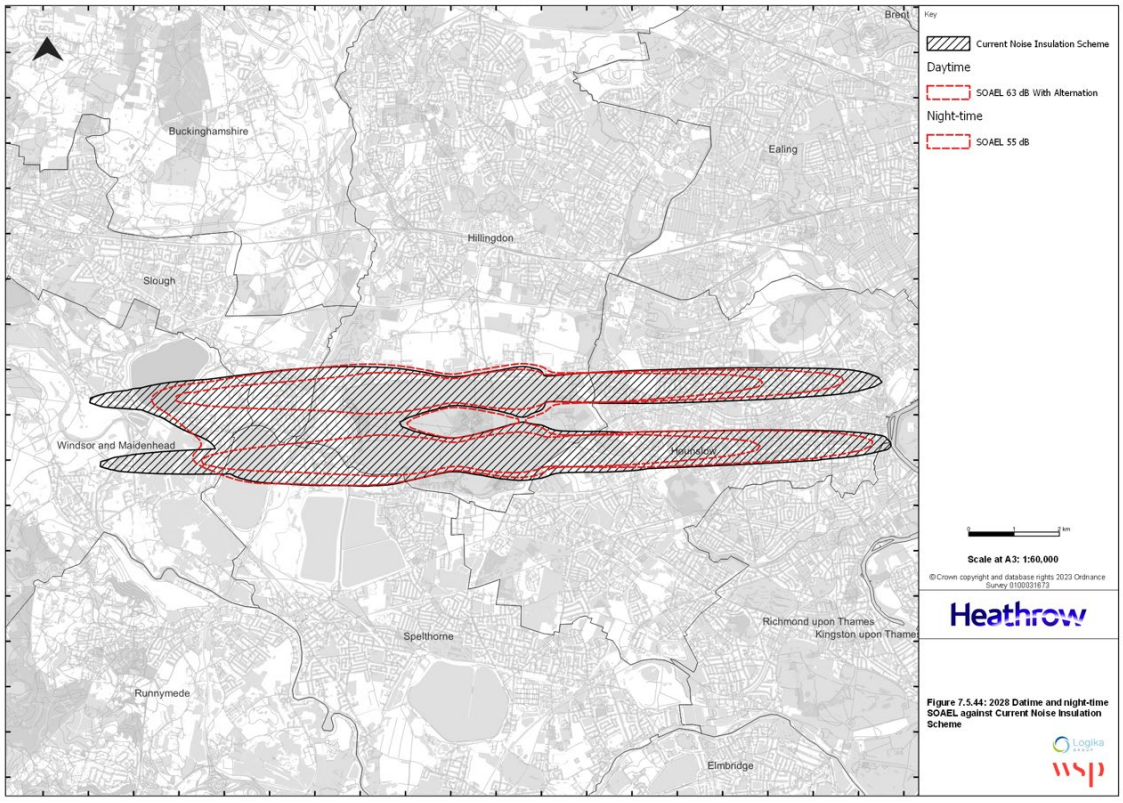
8.2.53 ES figure 7.5.44 shows the area covered by the forecast daytime and night time SOAEL for the airport operating with easterly alternation, compared with the area covered by

[132] Thornely-Taylor, Rupert (2015). Paragraph 2.7.7 of Proof of Evidence – Noise Enabling works to allow implementation of full runway alternation during easterly operations at Heathrow Airport. Appeal Ref. APP/R5510/A/14/2225774 Doc Ref. HAL/RTT/P/01. Available at https://www.ruperttaylor.com/HALRTTP01.pdf

Heathrow's current QNS (see **Figure 24**). It is apparent that there is a close correlation. In other words, virtually all those properties affected or newly affected by the airport operating with easterly alternation at noise levels above SOAEL would qualify for insulation under Heathrow's current QNS. However, close examination shows that the effect of easterly alternation would be to exceed the area covered by the QNS very slightly to the north, in the vicinity of Harlington.

8.2.54 It is already a feature of the QNS that it is dynamic, i.e. it will adjust to the actual noise impact of Heathrow operations. Even without further measures, therefore, the boundary of the QNS would adjust to incorporate the 63dB $L_{Aeq,16hr}$ contour on the commencement of easterly alternation.

Figure 24 - comparison between the 63db Leq16hr contour with alternation and the QNS boundary



8.2.55 At the time of the last planning application for easterly alternation, Heathrow confirmed that it would extend its then current noise insulation scheme to those properties affected by those proposals, on the basis that it would be fair to those properties (and unfair to all other affected properties if those newly affected benefited from a different, more generous scheme). This was examined at the planning inquiry in 2015 and the Inspector (and Secretaries of State) agreed, as follows:

"1079 In that the social and environmental aspects of sustainability appear to have been the drivers behind the decision to end the Cranford *Agreement* I agree with HAL that *"….**it would be disproportionate and unreasonable to require HAL to make substantial changes to its overall approach to the offer of insulation for those affected by noise from the airport**, as the price for obtaining the planning permission needed to implement full runway alternation on easterlies". In broad terms I also agree with HAL that, in those*

circumstances, there is no obvious justification for doing anything other than applying the Government's policy in the APF." (emphasis added)

8.2.56 Notwithstanding that background, Heathrow has undertaken more detailed analysis to make sure it has a full understanding of these locations most affected by the redistribution of noise that would be brought about by easterly alternation.

Easterly Alternation Mitigation Scheme

8.2.57 Whilst Heathrow's QNS is newly approved by government and significantly exceeds the noise mitigation package that was endorsed as appropriate for the previous easterly alternation application, Heathrow has considered whether it fully meets the objectives of bringing greater equity and fairness to noise distribution around the airport. For the large majority of affected communities, the QNS scheme is directly fit for purpose and will provide an equitable offer of noise insulation.

8.2.58 However, whilst there are a very large number of residents that will benefit from the introduction of easterly alternation, Heathrow is nevertheless sensitive to the impact of new overflights and aware that these affect a corridor of land that stretches from Cranford north-east to the North Hyde area and that a change in activity will also be apparent in Longford, Cranford and Stanwell Moor and immediately neighbouring communities. For the new corridor particularly, the average $L_{Aeq,16hr}$ measurement would not meet the criteria of 63 dB and properties in that corridor would not qualify for the QNS.

8.2.59 Heathrow is also aware of its obligation to currently affected communities and it cannot extend noise insulation to communities at lower qualifying levels of noise without making that same offer all around the airport, which would be disproportionate and uneconomic.

8.2.60 However, Heathrow has devised a new, further mitigation offer based on the change in noise – i.e. a scheme that complements the QNS but responds to the implications of changes brought about by the introduction of easterly alternation. The details of the new Easterly Alternation Mitigation Scheme are set out in **Appendix 7,** but the principal characteristics are summarised below*:*

Table 11 – Principal characteristics of the Easterly Alternation mitigation scheme

Category	Package
Providing support for any dwellings which become exposed to levels of 69 dB $L_{Aeq,16hr}$ due to Easterly Alternation and are not currently captured by the existing HRAS scheme.	For residential dwellings that become exposed to levels of air noise of 69 dB $L_{Aeq,16hr}$ and above due to the Proposed Development, and do not already qualify for relocation assistance under Heathrow's Home Relocation Assistance Scheme, a financial contribution of up to £20,000 will be available to support the costs of residents relocating. This scheme will be delivered under the same terms as Heathrow's current HRAS.

Category	Package
	A provision for up to 60 dwellings has been made subject to further analysis, however Heathrow does not currently expect any dwellings to be above 69 dB $L_{Aeq,16hr}$ in 2028 that are not already within the existing HRAS boundary.
Providing financial assistance towards noise insulation where adverse likely significant effects are forecast at or above 54 dB $L_{Aeq,16hr}$ and a 3 dB increase Residential 60-63 dB $L_{Aeq,16hr}$ + 3 dB increase Residential 54-60 dB $L_{Aeq,16hr}$ + 3 dB increase	Up to £12,000 per dwelling Fixed at £3,000 per dwelling
Non-residential SOAEL effects	In addition to any schools or community buildings that become eligible for noise insulation under the QNS due to Easterly Alternation, Heathrow will offer a package of bespoke insulation and ventilation based on its QNS scheme for any primary or secondary school forecast to experience significant increases in air noise of 3 dB $L_{Aeq,16hr}$ or more and become exposed to at least 54 dB $L_{Aeq,16hr}$ due to the Proposed Development and have not already received insulation under any of Heathrow's legacy schemes. All works provided under this package of mitigation up to a total value of £2.5m per school.
Non-residential parks and open space	For all parks which are forecast to experience an adverse likely significant effect on a ‘wide’ scale, Heathrow will make a financial contribution towards their enhancement in other ways. Such measures will be discussed and agreed with the relevant authorities. £250,000 in total for 3 parks.

8.2.61 This further scheme of mitigation is designed to target the specific impacts of easterly alternation. In particular, by targeting properties subject to an increase of 3 dB or more and extending the eligibility down to properties in the 54 dB to 60 dB $L_{Aeq,16hr}$ band, the additional mitigation package recognises that some properties will experience a marked change in noise effects during easterly operations, even if the overall effect of Heathrow's year round operations does not reach levels that would qualify for insulation under the new QNS scheme.

8.2.62 The effectiveness of this can be seen in ES Table 7.43 which is reproduced again here.

Table 12 - Change in Daytime Noise Exposure due to the Proposed Development – Standard Mode

Standard Mode, 76%W:24%E, Population (thousands)											
$L_{Aeq,8hr}$	Reduction in Noise Exposure					No Change	Increase in Exposure				
Exposure With Development	Major > 6.0	Moderate 3.0 – 5.9	Minor 2.0 – 2.9	Slight 1.0 – 1.9	Negligible 0.1 – 0.9	< 0.1 increase or decrease	Negligible 0.1 – 0.9	Slight 1.0 – 1.9	Minor 2.0 – 2.9	Moderate 3.0 – 5.9	Major > 6.0
Lowest Observed Adverse Effect Level (LOAEL)											
45 – 48 dB	0.0	0.0	0.0	18.5	17.4	304.0	10.9	3.2	0.2	0.0	0.0
48 – 51 dB	0.0	0.0	0.0	9.2	8.0	131.7	7.5	4.0	0.5	0.0	0.0
51 – 55 dB	0.0	0.0	0.0	1.1	2.6	106.6	15.2	3.7	0.3	0.0	0.0
Significant Observed Adverse Effect Level (SOAEL)											
55 – 57 dB	0.0	0.0	0.0	0.2	0.4	22.4	2.4	0.2	0.0	0.0	0.0
57 – 60 dB	0.0	0.0	0.0	0.0	0.6	21.6	2.4	0.1	0.0	0.0	0.0
60 – 63 dB	0.0	0.0	0.0	0.0	0.0	1.2	2.1	0.1	0.0	0.0	0.0
> 63 dB	0.0	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0	0.0	0.0
Totals	**Total Experience Beneficial Magnitude of Change**						**Total Experiencing Adverse Magnitude of Change**				
	0.0	0.0	0.0	29.1	29.3	587.5	41.0	11.2	1.0	0.0	0.0
	Beneficial Changes (> 1 dB)						**Adverse Changes (> 1 dB)**				
	29,100						12,200				

Eligibility to Quieter Neighbourhood Scheme (QNS) Residential Insulation Scheme (RIS)
Adverse Likely Significant Effects
Beneficial Likely Significant Effects

8.2.63 The colour coding helps to show how the QNS (purple) would be effective in mitigating effects above 63 dB (above the SOAEL), whether the change is 3dB or less. Additionally, the green and blue colour coding shows how the new Easterly Alternation Mitigation Scheme would address impacts of 3 dB or more, even though the SOAEL threshold is not reached.

8.2.64 The scale of the noise insulation cost / payment offered in those circumstances is less than the full cost of mitigation offered to properties under the QNS. The reason for this is that these additional properties would be affected for a much smaller proportion of time (which is why, measured on an Leq basis, they would not qualify for noise insulation). The effect of easterly alternation is that these newly affected properties would be subject on average to overflights for c.10% of the summer period and c.14% year round. For the most affected, the scheme offers £12,000, which is approximately a 50% contribution to the average outturn cost of noise insulating a property. For those in the 54-60 dB band, £3,000 is a meaningful contribution to secondary glazing or towards the full cost of insulation, recognising that the overall noise level is much lower than that which requires any contribution to normally be made.

8.2.65 For schools, the large majority of affected schools are already covered by the QNS and many have already been in receipt of noise insulation works. The Easterly Alternation Mitigation Scheme, however, would extend noise insulation to two schools that would not otherwise qualify: the Cedars Primary School in Cranford and the Cranford Community College. Those schools would experience a marked change in noise during easterly alternation, but their overall noise levels would not qualify under the existing scheme. The new scheme allows for full noise insulation based on a bespoke survey in each case, with up to £2.5 million available for each school.

8.2.66 Notably, noise insulation would be offered and installed based on the forecast effects of easterly alternation, but the contour boundaries of the scheme would be reviewed on a regular basis following the commencement of operations. This will ensure that the scheme remains up to date and avoids any risk that the application might inadvertently underestimate effects or that airport operations might change in the future to produce greater effects. In those unlikely circumstances, the review would ensure that the mitigation offered would respond.

8.2.67 For the impact of new overflights on the 3 open spaces at Harlington / Cranford, Heathrow recognises that the impact cannot be mitigated and the contribution of £250,000 is intended instead to fund compensatory enhancements to the parks (to be agreed with the planning authorities, in consultation with their communities). Those parks would be newly affected by overflights for c.10-14% of the time but unaffected for the remainder. With the funds offered, improvements to landscaping, biodiversity or facilities would enhance enjoyment of the park throughout the year.

Policy compliance

8.2.68 In principle, the application proposals not only comply with planning policy, they are driven by the government policy decision to end the Cranford Agreement, which decided that the benefits of runway alternation should be extended to all communities around Heathrow (see paragraphs 2.3.16-17 earlier). Policy in the Aviation Policy Framework (at paragraph 1.63) confirms that decision as government policy and calls on Heathrow to implement it through the submission of a planning application:

"*This decision needs to be implemented by Heathrow Airport Ltd and a planning application will shortly be submitted for the necessary changes to airport infrastructure. Following implementation, noise will be distributed more fairly around the airport, extending the benefits of runway alternation to communities under the flight paths during periods of easterly winds, and delivering operational benefits by letting the airport operate consistently whether there are easterly or westerly winds.*"

8.2.69 The consequences of easterly alternation, therefore, are a consequence of that government policy position, rather than consequences which need to be analysed to determine the acceptability in principle of this application. As explained above, the Proposed Development would be successful in its objective to bring relief (for the first time for 70 years) to communities (to the west of the northern runway) who currently experience constant overflying from arrivals during easterly operations and to communities (to the east of the southern runway) who currently experience constant overflying from departures.

8.2.70 It may be raised by consultees that this will result in some areas being newly affected for the first time or that the smaller number of adverse effects are more significant than the (significantly) greater number of beneficial effects, but these characteristics of the proposals were raised by stakeholders before and understood by the Government at the time it made its decision (which was informed by detailed technical analysis and extensive consultation). Through its decision the Government concluded that it was important to bring equity to the distribution of noise at the airport and that it was "*preferable to benefit large numbers of people by removing them from the 57 dBA Leq contour, at the expense of exposing smaller numbers of people to increased noise at higher levels."* (see paragraph 2.3.5 above)

8.2.71 The importance of delivering planned periods of respite to communities through alternation is also directly consistent with policy for Heathrow set out in the ANPS (at paragraphs 3.58, 5.56 and 5.61), which emphasises the importance which government policy attaches to affected communities being provided with respite.

8.2.72 This principle was also a significant feature of the recent decision at London City Airport.[133]

8.2.73 Unsurprisingly, therefore, the Secretaries of State in their decision on the previous application agreed with the Inspector that:

"The Secretaries of State agree with the Inspector at IR840 that the Government's decision that the Cranford Agreement should be ended means that the issue that lies at the heart of this appeal is whether the proposed mitigation and compensation measures for those likely to be affected by the proposals can be regarded as "appropriate". (paragraph 14)

8.2.74 In that context, the mitigation proposed by Heathrow generally and for easterly alternation specifically exceeds the requirements of government policy and exceeds that which the Secretaries of State found to be acceptable in 2017.

8.2.75 As the policy table (**Table 6**) at the beginning of this chapter explains, government policy for the mitigation of aircraft noise has not changed materially since the Secretaries of State granted planning consent for the previous proposals in 2017. The APF continues to provide the Government's policy that: *"As a minimum, the Government would expect airport operators to offer financial assistance towards acoustic insulation to residential properties which experience an increase in noise …which leaves them exposed to levels of noise of 63 dB LAeq,16h or more.*"

8.2.76 Heathrow's QNS significantly exceeds this policy requirement by meeting the full cost of noise insulation. In that context, it also goes beyond the 63 dB $L_{Aeq,16hr}$ policy threshold by including a suite of night-time eligibility metrics. It is also more generous than the noise insulation policy which the Secretaries of State found acceptable in 2017. The QNS has recently been the subject of consultation and endorsement by Government through Heathrow's Noise Action Plan.

8.2.77 However, whilst Heathrow could have relied on the 2017 decision to simply extend its airport noise insulation policy (the QNS) to any newly qualifying residents, Heathrow's proposed

[133] In that case, the proposal involved a loss of respite, which the Inspector and the Secretary of State found represented a fundamental shift for the affected communities, contrary to policy (including London Plan Policy T8), irrespective of the assessment of overall noise effects https://www.gov.uk/government/publications/recovered-appeal-london-city-airport-hartman-road-silvertown-london-e16-2px-ref-3326646-19-august-2024

Easterly Alternation Mitigation Scheme goes significantly further, to target residents affected by a change of 3 dB or more, even though the resulting noise effects are well below those which would normally qualify for the QNS or those which Government policy expects should trigger insulation.

8.2.78 The same is true in relation to qualifying non-residential properties and in relation to impacts on open space, where the Easterly Alternation Mitigation Scheme offers a substantial contribution to the enhancement of newly affected open spaces, even though no such contribution was required in 2017 and none is required by policy.

8.2.79 It is also relevant that the continued reduction in aircraft noise means that all impacts will be less than those which were found acceptable in 2017.

8.2.80 Policy requires proposals to meet the three aims of the NPSE, in the context of government policy for sustainable development. Those aims are:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *Avoid significant adverse impacts on health and quality of life*
- *Mitigate and minimise adverse impacts on health and quality of life*
- *Where possible, contribute to the improvement of health and quality of life."*

8.2.81 These are the same aims against which the previous proposals were determined in 2017. The Inspector's conclusions in that case were accepted by the Secretaries of State and they remain valid today. Consequently, it has already been found that Heathrow's approach meets the aims of the NPSE.

8.2.82 In particular, using paragraph numbers from the Inspector's report, the Inspector found, and the Secretaries of State agreed that:

- 63 dB is the level at which policy expects a contribution to noise insulation and it also represents the level of SOAEL (para. 1045)
- there is no policy imperative to offer insulation below SOAEL (para. 1052)
- by offering noise insulation at SOAEL, significant adverse effects on health and the quality of life are avoided and the first aim of the NPSE is met (para. 1087)
- it would be disproportionate to expect Heathrow to change its airport wide insulation policy generally, or to offer a different package to those affected by easterly alternation (para. 1079)
- the mitigation and minimisation of noise between LOAEL and SOAEL is achieved by measures other than noise insulation (the range of other measures which Heathrow takes to limit noise) and the second aim of the NPSE is met (para. 1064)
- likely significant environmental effects are different from the significant effects on health and the quality of life referenced in the NPSE and it is not inappropriate that some significant environmental effects are not directly mitigated (para. 1064)
- Heathrow's approach exceeds the requirements of policy (para. 1121)

- the proposals comply with the development plan, national policy and the NPSE (paras. 1080 and 1122).

8.2.83 These conclusions are particularly important as they comprehensively and conclusively accept that Heathrow's application for easterly alternation infrastructure (together with the mitigation package offered at that time) fully met the requirements of government policy. Notably, since that decision in 2017:

- the aims of the NPSE and their status as the principal expression of national noise policy have not changed and their status at the heart of policy has been consolidated;
- Government policy for noise insulation has not changed;
- The noise effects of this application are less than those anticipated in 2017; and
- Heathrow's noise insulation offer has increased significantly.

8.2.84 For the reasons set out earlier, which compare the current proposals and effects with those prevalent in 2017, these conclusions would apply even more strongly to this application.

8.2.85 By offering noise insulation at SOAEL (63 dB $L_{Aeq,16hr}$), significant adverse effects on health and the quality of life are avoided. This much was directly accepted in 2017 and remains the case. The logic of this approach is apparent from the terms of the NPSE, which aligns the first aim of the NPSE with the definition of SOAEL, as follows:

"***SOAEL*** *– Significant Observed Adverse Effect Level - This is the level above which significant adverse effects on health and quality of life occur."*

8.2.86 To meet the first aim, therefore, SOAEL must be avoided. SOAEL in this case (and commonly elsewhere) is 63 dB $L_{Aeq,16hr}$ and it is avoided partly by all of the measures which Heathrow takes to manage aviation noise but particularly by offering comprehensive noise insulation at 63 dB $L_{Aeq,16hr}$. Comprehensive mitigation (for example, with double glazing and ventilation) ensures a satisfactory internal environment in dwellings and non residential properties. As the PPG explains, SOAEL is a noise level (rather than a change in noise) which is relevant indoors and which causes a change in behaviour, such as closing windows to avoid sleep disturbance etc. (see the Policy **Table 6** above). It is avoided by noise insulation, which prevents that harm. This much was confirmed by the previous Inspector (see above) and is consistent with the Overarching Aviation Noise Policy statement, which confirms that "*noise mitigation as well as noise reduction can contribute to reducing total adverse effects of noise."*

8.2.87 It is also consistent with the fact that Government policy does not require noise mitigation at levels below 63dB $L_{Aeq,16hr}$. If noise levels below 63dB $L_{Aeq,16hr}$ were unacceptable without noise insulation, policy would have not set the requirement at 63dB.

8.2.88 The first aim of the NPSE, therefore, is met.

8.2.89 For similar reasons to those found by the previous Inspector, the second aim is also met. Between LOAEL and SOAEL noise insulation is not required but an applicant must mitigate

and minimise adverse effects on health and the quality of life. As the Policy table shows, the NPSE provides that:

"The second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise negative effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). ***This does not mean that such negative effects cannot occur****."* (emphasis added)

8.2.90 The previous Inspector (at paragraph 1064) (and the Secretaries of State) found that this aim was met by measures other than noise insulation, i.e. by the full range of other measures which Heathrow takes to limit, manage and mitigate air noise from the operation of the airport. Those measures are set out comprehensively in **ES Appendix 7.2: Noise Management and Mitigation at Heathrow Airport**. Heathrow can be confident that these represent best practice, not least because they have recently been reviewed and endorsed by the Government through its endorsement of Heathrow's Noise Action Plan 2024. As set out above they have been markedly successful in progressively reducing Heathrow's noise footprint.

8.2.91 It is also relevant that this planning application, by implementing the ending of the Cranford Agreement, would contribute significantly to this aim. Notably:

- the number of people living in the area defined by the LOAEL contour (defined in the NPSE as the level at which adverse effects on health and the quality of life can be detected) would reduce by 2,800 in the day-time and 7,900 at night (ES paragraphs 7.8.87 and 7.8.101);
- the number of people living between LOAEL and SOAEL would reduce by 15,300 in the day-time and 9,700 at night (**ES Chapter: Noise and Vibration** paragraphs 7.8.87 and 7.8.101)
- the number of people "highly annoyed" by aircraft noise would fall (**ES Chapter: Noise and Vibration** paragraphs 7.8.181 and 7.8.185)
- the number of people overflown by large numbers of noise events of 65dB or more would fall (see above **Table 12**).
- all communities around Heathrow would benefit from predictable respite, whether the wind was blowing from the west or the east.
- insulation would be extended to those below SOAEL who experience a change in noise of 3 dB or more. This and all aspects of the Easterly Alternation Mitigation Scheme reinforce Heathrow's compliance with the second aim of the NPSE.

8.2.92 As the NPSE makes clear, it is not necessary to meet the third aim – to where possible improve health and the quality of life. This application is unusual, however, in bringing very significant benefits. Health and quality of life would certainly be improved for those communities that would achieve respite during easterly operations for the first time in c.70 years.

8.2.93 As set out above, the application would bring noise benefits to a substantial population and the third aim of the NPSE is also comprehensively met.

8.2.94 One aspect of policy picked out specifically by the Inspector and by the Secretaries of State related to those affected by the highest levels of noise – i.e. levels at or above 69 dB where policy might expect home relocation assistance to be offered (or the application be found to be unacceptable on the basis that 69dB may represent UAEL – unacceptable adverse effect levels which should be prevented).[134] At Heathrow, the Inspector heard evidence of households subject to these levels of noise who did not wish to move. He recommended, and the Secretary of State agreed, that there should be a "Cranford-specific condition" which extended the offer of full noise insulation to those properties, so that they may have the choice of staying and insulating or moving.[135] That condition was imposed on the 2017 permission (condition 9) and Heathrow would be content for it to be imposed again (see **Appendix 5**).

8.2.95 The Government's stated objectives when ending the Cranford Agreement are set out at paragraph 2.3.17 above and said to be:

- to redistribute airport noise more fairly;
- to provide periods of respite during the day for all areas affected on both westerly and easterly operations; and
- to give communities predictable periods of respite form airport noise when the airport is on easterlies.

8.2.96 The air noise assessment shows that those objectives would be completely secured by the Proposed Development.

8.2.97 For all these reasons, the application complies with and implements government policy and the mitigation package which it is proposed is committed as part of any permission, significantly exceeds the requirement of policy.

8.2.98 London wide (Policy T8) and local policies EM1 and EM8 do not add significantly different tests and they have been drafted, of course, to be consistent with government policy.

8.2.99 Policy T8 confirms that the Mayor of London supports the role of airports in London's spatial growth, particularly in well-connected Opportunity areas (like Heathrow). The principal requirement of Policy T8 is that the environmental and health impacts of aviation must be fully acknowledged, and aviation-related development proposals should include mitigation measures that fully meet their external and environmental costs, particularly in respect of noise (air quality and climate change). Paragraph E of the Policy additionally requires that proposals which amend airport operations must take full account of environmental impacts and the views of affected communities.

[134] It is a feature of easterly alternation that there is forecast to be an increase in properties affected above 69dB Leq, The Table at paragraph 2.33 earlier shows that this effect was understood at the time the Cranford Agreement was ended.
[135] The effect of the Cranford specific condition is that 69dB is not in fact the UAEL for these properties at Heathrow, which is partly why it is described as a precautionary level in the ES.

8.2.100 The principal emphasis of the policy relates to applications for airport expansion, which does not apply in this case.

8.2.101 However, supporting text at paragraph 10.8.2 calls on airports to use technology to achieve tangible reductions in air noise exposure, something which Heathrow has been consistently achieving for years.

8.2.102 As the comprehensive nature of the ES shows, Heathrow does fully acknowledge and make transparent the environmental and health impacts of airport operations generally and this application proposal in particular. Where required by policy, mitigation is proposed to address adverse effects.

8.2.103 Hillingdon policies (set out at paragraph 4.9 above and in the Policy table at **Table 6**) seek a reduction in noise and other environmental impacts at Heathrow but there is no aviation noise policy against which to test the application proposals. The Local Plan does acknowledge the benefit of westerly alternation in regulating noise to the benefit of local communities and, by extension, the same must apply to easterly alternation.

8.3 Ground Noise

Assessed effects

8.3.1 The detail of the ground noise assessment is set out in **ES Chapter 7: Noise and Vibration**, which draws on the more specific ground noise assessment set out in **ES Appendix 7.6 Ground Noise** and on the set of ground noise figures (ES Figures 4.7.6).

8.3.2 Ground noise is principally concerned with the movement of aircraft on aprons and taxiways on the airfield, up to and including the start of roll. It does not include aircraft noise in the landing or taking off cycle. Noise sources such as engine ground running, landside road vehicles, airside vehicles and ground support equipment, and fixed plant will be unchanged and have not been included in the assessment of aircraft 'ground' noise arising from easterly alternation.

8.3.3 The principal causes of any change in ground noise are:

- the redistribution of about half of the aircraft getting ready for take-off on easterly operations to the north west of the airfield (approaching 09L) rather than all easterly take-off taxiing taking aircraft to the south west of the airfield, approaching 27R; and
- the sharing of aircraft movements following landing from all arriving at the north-east of the airfield (09L) to being evenly split so that c. half arrive at the east end of the southern runway (27R).

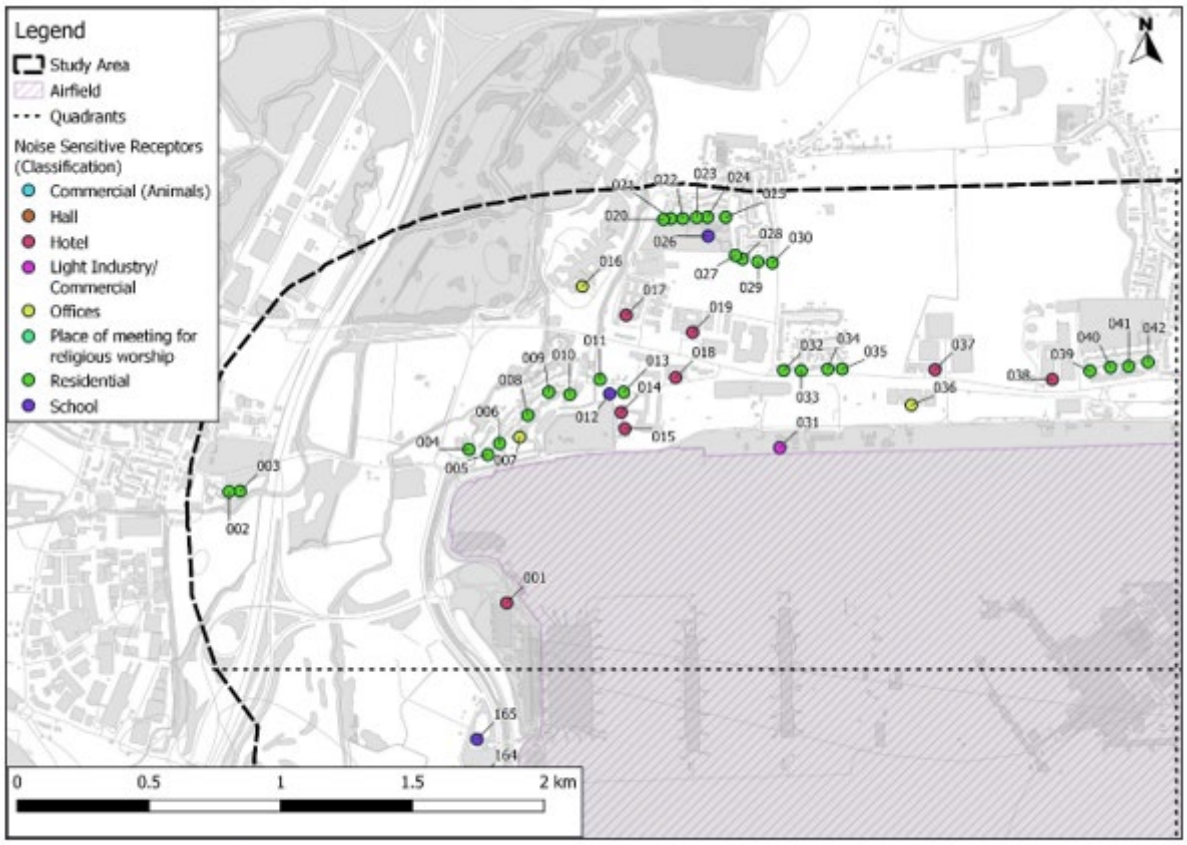
8.3.4 **ES Appendix 7.6 Ground Noise** explains the modelling undertaken of redistributed taxiing (through CAST modelling), which has in turn informed the ground noise modelling.

8.3.5 As with air noise, the modelling of the with and without development conditions is undertaken as at 2028, which is representative of the worst case year.

8.3.6 A 1km study area drawn from the airfield boundary is used, to capture all ground noise above LOAEL and, for the purposes of assessment, the noise sensitive receptors in the

study area are divided into four quadrants. In total 165 noise sensitive receptors (NSR) are modelled (see ES Figure 7.6.1) and the figure below shows the NSR in the North West quadrant, which includes properties in Longford (see **Figure 25**).

Figure 25 – Noise Sensitive Receptor Locations (Northwest Quadrant) (ES Appendix 7.6 Ground Noise Graphic 7.1.4)



8.3.7 It is the North West quadrant which would observe the greatest change, with the introduction of wholly new ground movements on the new airfield infrastructure designed as a part of this application to enable aircraft to taxi and hold efficiently to access the start of runway 09L in preparation for take-off. There will be some increase in activity in the South East quadrant (more landings) but landings involve less manoeuvring and holding than take-offs and the activity is quieter.

8.3.8 The North West quadrant is also the only quadrant of the airfield that does not currently have a noise barrier. Consequently, one is proposed in this application to mitigate noise effects on Longford and it is treated as part of the application (as embedded mitigation) for the purpose of the noise assessment.

8.3.9 The position and height of the noise barrier are shown in **Figure 26**:

Figure 26 – Proposed Longford Noise Barrier (ES Appendix 7.6 Ground Noise Graphic 7.1.2)

8.3.10 The assessment does not, therefore, assess the effect of the proposed development with and without the noise barrier. However, ES Graphic 7.6.13 and Figures 7.6.2 and 7.6.2 (in **Appendix 7.6 Ground Noise**) show its effect in principle in attenuating noise away from receptors in Longford. In general terms, the effect of the barrier is to attenuate noise by approximately 4 dB.

8.3.11 As set out earlier, a comparable barrier was proposed as part of the previous application and its effect was tested through the public inquiry, where the Inspector found that it was necessary and that there were very special circumstances justifying its development. The site of the barrier is no longer designated as Green Belt, but the effect and value of the barrier is similar.

8.3.12 The effects of the revised ground movements are set out in detail in the **Ground Noise Appendix 7.6** at Tables A7.6.8-9. The results show, with the barrier in place:

- no residential receptors in the north-west quadrant are forecast to exceed the daytime SOAEL in either the with or without Proposed Development scenarios. Consequently, no new significant adverse effects on health and quality of life are identified for the daytime period.
- No residential receptors with ground noise exposure between daytime LOAEL and SOAEL are forecast to experience a 'moderate' change (beneficial or adverse) in noise exposure due to the Proposed Development. Consequently, no likely significant effects have been identified for the daytime period.

- In fact, the principal effect of the Proposed Development is to bring beneficial decreases in daytime ground noise exposure at many residential receptors in Longford Village due to the Proposed Development. These reductions are a consequence of the acoustic screening afforded by the noise barrier during all modes of operation.
- A similar outcome is apparent for non-residential receptors – any increase in ground noise is generally small in scale and a number of receptors would benefit from a reduction in ground noise – notably, for example, Littlebrook Nursery (receptor 12 on the graphic above) which would experience a net day time noise reduction of 1.5dB.

8.3.13 A very similar picture is forecast for night time effects.

8.3.14 Unsurprisingly, the assessments show small scale reductions in ground noise in the North-East and South West quadrants and mixed small scale (not significant) increases and decreases in the South-East quadrant.

Mitigation

8.3.15 The results of the assessments mean that there is no need to propose additional mitigation beyond the noise barrier and the inherent benefits of alternation. Many areas close to the airport (including Longford) already benefit from access to Heathrow's QNS noise insulation scheme as a result of air noise but further mitigation is not necessary on account of ground noise.

Policy compliance

8.3.16 The proposals overall comply with policy and the embedded mitigation proposed in the form of the noise barrier would meet policy requirements to limit and minimise noise effects.

8.3.17 The assessment shows that all three aims of the NPSE are met - there would be no significant adverse effect on health and the quality of life, impacts are minimised and mitigated by the noise barrier and by the design of the airfield infrastructure with the new eastern runway access taxiway, which would move activity away from Longford as far as practicable and the net effect of easterly alternation infrastructure and the noise barrier would be to bring about some improvements in ground noise experienced by receptors in Longford.

8.3.18 London Plan and local planning policies have been reviewed earlier in relation to air noise and no conflict arises with the terms of those policies in relation to ground noise.

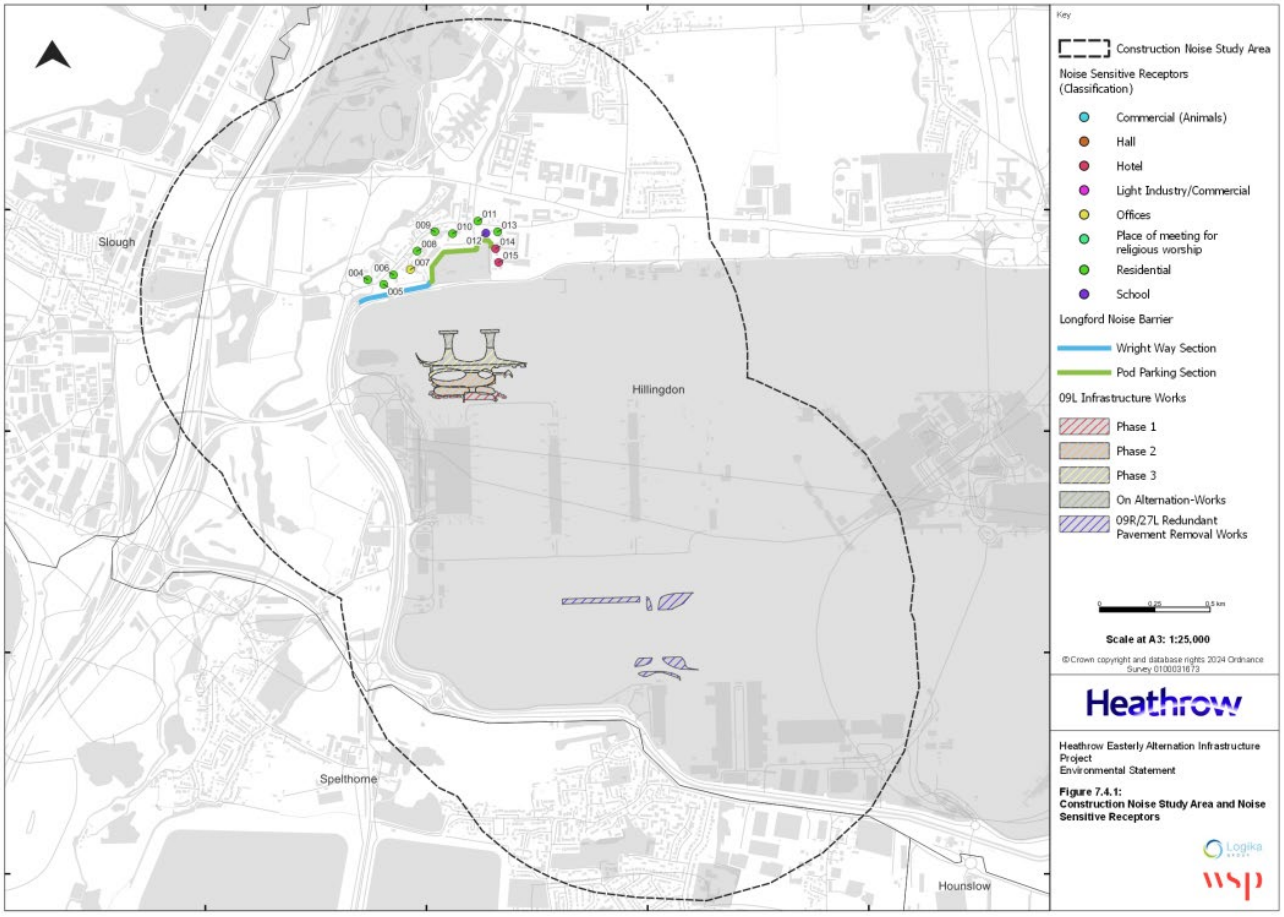
8.4 Construction Noise

Assessed effects

8.4.1 The detail of the construction noise assessment is set out in **ES Chapter 7: Noise and Vibration**, which draws on the more specific **Construction Noise and Vibration** assessment set out in **ES Appendix 7.4** and on the construction noise figures (Figures 4.7.4).

8.4.2 The Study Area comprises the immediate area around the construction works and **Figure 27** identifies the location of the works on the airfield and the location of the noise barrier adjacent to Longford. The same figure also shows the intended phases of the works and the location of 12 representative noise sensitive receptors (NSR). All NSR are in Longford.

Figure 27 – Location of construction works (ES Appendix Construction Noise and Vibration)



8.4.3 Table 7.9 of the **ES Chapter 7: Noise and Vibration** gives details of the indicative phasing and programme of works and is reproduced below:

*Table 13 - Construction programme and activities (**ES Appendix 7.4 Construction Noise and Vibration**)*

Construction Phase	Period	Approximate Duration (weeks)
Noise barrier construction along Wright Way	Night-time only	9
Noise barrier construction around Terminal 5 Pod Parking	Daytime only	10
09L airfield infrastructure Phase 1	Night-time only	21

Construction Phase	Period	Approximate Duration (weeks)
09L airfield infrastructure Phase 2	Night-time only	31
09L airfield infrastructure Phase 3	Daytime and Night-time	28
09L airfield infrastructure On-Alternation	Night-time only, two weekends on, two weekends off coinciding with night-time runway alternation	60

8.4.4 Notably, the noise barrier is to be constructed first (in two stages for west to east) so that it will be in place to shield noise arising from construction works on the airfield and subsequently from ground noise.

8.4.5 A feature of the construction works is that works on the airfield predominantly need to be carried out at night. This is also the case with the first stage of the noise barrier because its location brings the potential for works to interfere with OLS (obstacle limitation surfaces).

8.4.6 The application is accompanied by a detailed **Construction Environmental Management Plan (CEMP)** prepared by the appointed lead contractor Volker Fitzpatrick which sets out comprehensive details of the construction process, including matters such as the volume of materials involved, the volume of construction traffic required for each phase of work, working hours etc. The CEMP also sets out the measures proposed to limit the effect of the works. It is intended that the Applicant will be committed to construct the project in accordance with the measures set out in the CEMP through a condition attached to the grant of planning permission.

8.4.7 The **CEMP** includes a commitment for the Applicant to the process set out under Section 61 of the Control of Pollution Act (COPA), 1974, which enables a person intending to carry out construction works to apply to the local authority for prior consent to agree construction practices which represent best practicable means to limit noise. Experience shows that the Section 61 process often results in agreement to detailed working practices which limit noise further than originally assessed. Consequently, the submitted construction noise assessment represents a worst-case scenario.

8.4.8 The assessment is informed by a survey of baseline noise which has provided an indication of ambient noise levels at receptors in Longford. This found relatively high levels of ambient noise, principally from aircraft in flight. Because of its location, Longford receives noise from alternating arrivals and departures during westerly operations and continuous arrivals during easterly operations.

8.4.9 Table 7.11 of the **ES Chapter 7: Noise and Vibration** sets out LOAEL and SOAEL values for daytime, evening and night time (see **Table 14**):

Table 14 - Noise Construction LOAEL and SOAEL values for the construction noise assessment ES Appendix Construction and Vibration Table 7.11)

LOAEL			SOAEL		
Daytime (07:00-19:00)	**Evening (19:00 to 23:00)**	**Night-Time (23:00-0700)**	**Daytime (07:00-19:00)**	**Evening (19:00 to 23:00)**	**Night-Time (23:00-0700)**
65 dB $L_{Aeq,T}$	55 dB $L_{Aeq,T}$	45 dB $L_{Aeq,T}$	75 dB $L_{Aeq,T}$	65 dB $L_{Aeq,T}$	55dB $L_{Aeq,T}$

8.4.10 The detailed assessment of forecast construction noise is set out in a series of tables in the **ES Chapter 7: Noise and Vibration** (Tables 7.32 to 7.35). Each table gives detail of the predicted construction noise at each NSR, including the duration in numbers of days when any receptor would be subject to noise above the SOAEL for the day, evening or night.

8.4.11 Each table is accompanied by a Figure which provides a further breakdown for the most affected receptors for each week of each phase to show the duration of different noise levels.

8.4.12 It is not uncommon during the construction of infrastructure projects for adverse effects to be identified during construction, but it is usual to recognise that such effects are limited in duration, mitigated above SOAEL and subject to the Section 61 process which is normally successful in ensuring the noise effects arising for the necessary construction works will be limited as far as practical.

8.4.13 The most significant effects arise from the first stage of the noise barrier construction (Phase 1) principally because it will be constructed at night when ambient noise levels are lower and the adopted level for SOAEL is 55dB. Table 7.32 of the **ES Chapter 7: Noise and Vibration** sets out the detail and it finds that noise levels would exceed the SOAEL for 4 of the residential NSRs (these are the NSRs which represent residential properties at the western end of Bath Road, Longford in closest proximity to the site of the noise barrier). There, the SOAEL level is predicted to be exceeded for 4, 14, 19 and 30 nights respectively during the 9 week construction phase. For the other residential NSRs, predicted noise levels fall consistently below the SOAEL and, therefore, the noise effects for those properties are not judged as likely significant effects.

8.4.14 The appropriate mitigation for properties subject to noise levels above SOAEL from construction works is either to offer occupants temporary rehousing[136] or noise insulation. In this case, the properties in question all fall within the boundary of Heathrow's air noise QNS and already qualify for noise insulation – indeed many may have been insulated already.

8.4.15 The durations of impact are relatively limited, the exceedances of SOAEL are relatively minor and the construction of the noise barrier will bring lasting long term benefits by protecting those properties from existing and new ground noise impacts (Tables A7.6.8-9 show that ground noise at these properties would reduce with the noise barrier in place, compared with noise levels experienced today.) With the offer of full noise insulation

[136] Where the noise effects are forecast to persist for 10 or more days in 15, or 40 or more days in 6 months.

available, the effects of the construction noise impacts are mitigated and no significant adverse effects on health and the quality of life arise.

8.4.16 Tables 7.33-5 of the **ES Noise and Vibration Chapter 7** show the predicted construction noise impacts on the NSRs for the other construction phases. No further exceedances of SOAEL (and no further likely significant effects) are forecast except for effects arising from night time airfield construction works at two residential receptors on Bath Road, east of Littlebrook Nursery for 11 and 33 weeks. Again, the appropriate mitigation response is to offer noise insulation, and these properties already qualify for insulation under the QNS.

8.4.17 Accordingly, significant adverse effects on health and the quality of life are avoided and no policy conflict arises.

8.4.18 No further mitigation is necessary and the requirements of both policy and best practice are observed.

8.5 Vibration

8.5.1 Vibration effects from construction were scoped out of the assessment as unlikely to arise. However, vibration effects during operation are assessed in **Chapter 7: Noise and Vibration of the ES**.

8.5.2 Studies show that vibration from aircraft operations can arise from the use of reverse thrust on landings and, particularly, from the 'start of roll' phase of the take-off cycle, when aircraft emit allow frequency noise (LFN), which can generate vibration effects at properties for a distance of up to 500m.

8.5.3 Reverse thrust is already a feature of the northern runway on easterlies as planes land near Longford and there are reports that vibration effects are felt in Longford already. Start of roll on during easterlies currently is limited to the use of the southern runway and may affect properties in the vicinity of Stanwell Moor. Those effects would reduce there with easterly alternation as take-offs would be shared with the northern runway (where they may increase in Longford).

8.5.4 Accordingly, the ES has considered potential effects of vibration in a 500m zone from the point of start of roll, on runway 09L. 160 properties are in scope.

8.5.5 Studies by Heathrow and by Historic England are cited in **Chapter 7: Noise and Vibration of the ES** (for example, from paragraph 7.5.138). They report that effects on lightweight structures such as conservatories can be experienced at levels of 80 to 90 dB Lcs or more (which is a special noise metric used to capture low frequency noise in slow time) but that levels would need to be significantly higher to cause even cosmetic damage to buildings. The modelling for easterly alternation shows, however, that any areas which may experience 80 dB L_{CSmax} are already included within the boundary of Heathrow's QNS noise insulation scheme.

8.5.6 Limited effects may be anticipated, therefore, from easterly alternation but, in recognition that effects may arise on lightweight structures, Heathrow proposes to offer up to £10,000 per property in the Study Area to mitigate or remedy any damage that might occur.

8.5.7 That proposal for mitigation meets the planning policy requirement to minimise and mitigate adverse effects on health and the quality of life.

8.6 Overall conclusion

8.6.1 This Section of the Planning Statement has considered the four components of potential noise and vibration impact arising from the Proposed Development:

- Air noise
- Ground noise
- Construction noise; and
- Vibration.

8.6.2 The components share a common policy context (the same policy tests apply) and these are detailed comprehensively in **Table 6** at the beginning of this Section.

8.6.3 For each component, the Chapter draws on the assessment of noise effects set out in **Chapter 7: Noise and Vibration of the ES**. Effects are identified, mitigation proposals explained, and conclusions drawn for each category of noise against the requirements of planning policy.

8.6.4 That policy background, of course, specifically includes the Government decision to end the Cranford Agreement – a decision taken by a previous Labour government, reviewed and endorsed by the subsequent coalition government and a decision which was based on detailed, independent technical assessments and extensive public consultation. Those decisions recognised that there would be some communities significantly adversely affected by easterly alternation (the communities who have for a long time been protected by the Cranford Agreement at the expense of other communities who, as a result, receive no respite from easterly operations) but the Government concluded that more weight should be attached to the greater number of people who would receive noise benefit and, importantly, who would also be able to experience respite from overflying.

8.6.5 The general policy background (nationally and locally) also includes clear support for the principle of runway alternation in order to bring periods of respite to communities affected by airport operations, in the interests of health and of fairness.

8.6.6 The analysis shows that the Proposed Development would be successful in achieving those objectives – predictable respite would be introduced for all communities affected by Heathrow's flightpaths and noise effects would be more evenly and fairly distributed around the airport.

8.6.7 The noise effects arising are a consequence of those government policy decisions and not a reason in themselves to question the grant of planning permission. As the Inspector and the Secretaries of State confirmed when they considered Heathrow's previous application in 2017, significant public benefits are to be achieved by implementing easterly alternation and the relevant questions that arise concern whether or not appropriate mitigation is proposed for those who would be adversely affected.

8.6.8 This Section has examined those questions in detail, with the benefit of conclusions reached on Heathrow's previous very similar application in 2017. Notably, government policy on the benefits of alternation has been reinforced since that previous decision and government policy on the noise mitigation which airports should provide has not significantly changed.

8.6.9 In 2017 the Inspector and the Secretaries of State considered that it would be proportionate and equitable for communities newly or adversely affected by easterly alternation to receive the same noise mitigation offer that Heathrow makes available to existing affected communities. Heathrow confirms its willingness to do that in this case and this Section has explained how Heathrow's noise insulation scheme (called QNS) has been refreshed and enhanced since 2017. Heathrow and LB Hillingdon can be assured that Heathrow's QNS scheme is up to date and consistent with government policy, because it has recently been prepared, consulted on and endorsed by government through the airport's Noise Action Plan 2024.

8.6.10 However, Heathrow has decided to go further and to recognise that there are some communities who would be adversely affected by easterly alternation but whose overall noise levels would not reach levels that would ordinarily entitle them to noise insulation. Consequently, this application also offers a bespoke Easterly Alternation Mitigation Scheme which provides differing levels of contribution to residential and non-residential receptors who experience a significant change in noise even at lower levels of overall noise. This exceeds the requirements of planning policy.

8.6.11 The boundaries of the noise insulation scheme would be subject to regular review to ensure that they remain consistent with the actual (as well as the forecast) impacts of easterly alternation.

8.6.12 The Easterly Alternation Mitigation Scheme also offers £250,000 to enhance the amenity of public parks at Cranford, which would be newly affected by overflying during easterly operations (for c.12% to 14% of the time).

8.6.13 Best practice is also proposed to mitigate and minimise lower levels of noise impact from ground noise, construction and vibration. In particular:

- a noise barrier is proposed to reduce noise for the community of Longford. The length and height of the barrier has been the subject of consultation with the community on Longford and the barrier would be erected first, before construction works on the airfield and before the commencement of easterly alternation.
- a comprehensive **Construction Environmental Management Plan (CEMP)** has been prepared in order to ensure best practice in construction, including a commitment to agree detailed working practices with LB Hillingdon in order to further limit construction noise.
- a fund is proposed to address any observed effects form vibration on structures in Longford, although no significant effects are anticipated.

8.6.14 These measures are additional to the full range of noise management measures which Heathrow deploys to limit the effects of airport operations and which have been successful over a long period in significantly, progressively reducing Heathrow's noise footprint.

8.6.15 In total, this represents a comprehensive response, so that the noise benefits of easterly alternation can be secured whilst impacts on those adversely affected are addressed through a package of measures which significantly exceed the requirements of planning policy.

9. AIR QUALITY

9.1 Introduction

9.1.1 This Section provides an assessment of the Proposed Development against relevant planning policy tests taking into account the conclusions arising from the assessment of likely significant environmental effects set out in **Chapter 6: Air Quality of the ES**.

9.1.2 The Proposed Development does not involve an increase in aircraft movements or passenger throughput at the airport but it will lead to a change in aircraft movement patterns on the ground and in the air, during easterly operations only, which occur for approximately 24% of the time. There will be no change during westerly operations which occur for approximately 76% of the time.[137]

9.1.3 The main effect in air quality terms would be a relocation of activity with an increase in the number of aircraft departing on the northern runway (09L) and arriving on the southern runway (09R) during easterly operations and an equivalent decrease in the number of aircraft departing on the southern runway (09R) and landing on the northern runway (09L) during easterly operations. The number of aircraft movements will be unchanged by the Proposed Development and aircraft will be using the same flight paths as they do now.

9.1.4 The principal air pollutants of concern are nitrogen dioxide (NO2), particulate matter less than 10 µm in diameter (PM10) and particulate matter (PM) less than 2.5 µm in diameter (PM2.5); PM10 and PM2.5 are collectively referred to as PM. **Chapter 6: Air Quality of the ES** assesses predicted concentrations of nitrogen dioxide NO2, PM10 and PM2.5 at relevant receptor locations for the 2028 Without Development and With Development scenarios. 2028 has been chosen as the likely worst case year. It is the first anticipated year of operating easterly alternation and progressive improvements in local air quality are forecast to continue so that any effects would be less after the opening year.

9.1.5 Concentrations have been calculated for three meteorological years (Met years) (2017, 2018 and 2019), and results are given for the worst Met year unless otherwise indicated. As set out earlier, the percentage of the year when the wind blows from the east or west varies and that can affect the dispersion of pollutants as well as the operation of the airport. The use of three Met years ensures that a range of weather conditions is captured in the assessment.

9.1.6 Overall, modelled aircraft emissions of NOx increase by an average of 1.2 tonnes in the With Development scenario compared with the Without Development scenario in 2028 (averaged over three Met years). The increase is caused by an increase in aircraft taxiing out to 09L and fewer taxiing to 09R, and also fewer aircraft taxiing in from the end of 09L with more from the end of 09R. The net change of 1.2 tonnes is an increase of less than 0.1% of ground-level aircraft emissions. In broad summary, NOx emissions from aircraft are largely due to departures (which have higher engine thrust settings and more queuing) rather than arrivals, so the increased number of departures on the northern runway in

[137] The Air Quality chapter of the ES explains (at paragraph 6.5.7) the derivation of these averages.

easterly operations means greater emissions close to Longford and lower emissions close to Stanwell.

9.1.7 For PM, the effect is the reverse. PM is largely generated on landing, through wear and tear on aircraft brakes and tyres. The Proposed Development therefore results in a shift of PM emissions from the northern runway to the southern runway, and consequently leads to a small decrease in PM concentrations in Longford and a small increase in PM concentrations in Stanwell.

9.1.8 Before setting out how the effects of these changes are assessed in the ES, it is relevant to understand the requirements of planning policy in relation to air quality.

9.2 Principal Air Quality Policies

9.2.1 The table below sets out the principal planning policy tests relating to air quality.

Table 15 - Principal planning and policy guidance tests

Document/reference	Policy tests
Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England (2018)[138]	Paragraph 5.43 of the ANPS relates directly to any proposals for a new North West runway at Heathrow and details the air quality considerations that *"are likely to be particularly relevant where the proposed scheme:* • *is within or adjacent to Air Quality Management Areas, roads identified as being above limit values, or nature conservation sites (including Natura 2000 sites and Sites of Special Scientific Interest);* • *would have effects sufficient to bring about the need for new Air Quality Management Areas or change the size of an existing Air Quality Management Area, or bring about changes to exceedances of the limit values, or have the potential to have an impact on nature conservation sites; and* • *after taking into account mitigation, would lead to a significant air quality impact in relation to Environmental Impact Assessment and / or to a*

[138] Department for Transport (2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Available at https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

Document/reference	Policy tests
	deterioration in air quality in a zone or agglomeration."[139]
National Planning Policy Framework ('NPPF') (2023)[140]	**Paragraph 180(e)** requires planning decisions to prevent new development from contributing to unacceptable levels of air pollution. It goes on to state that *"development should, whenever possible, help to improve local environmental conditions such as air quality…"* **Paragraph 192** requires that planning decisions *"sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified…Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."*
Planning Practice Guidance ('PPG)[141]	The PPG on air quality describes "*the legally binding limits*[142] *for concentrations in outdoor air of major air pollutants that affect public health such as particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen dioxide (NO_2)"* as set out by the 2008 Ambient Air Quality Directive. The PPG states that air quality considerations may be relevant if the "…*development is likely to have an adverse effect on air quality in areas where it is already known to be poor, particularly if it could affect the implementation of air quality strategies and action plans*

[139] Department for Transport (2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Paragraph 5.43. Available at https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf
[140] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available at https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf
[141] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available at https://www.gov.uk/guidance/air-quality--3
[142] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available at https://www.gov.uk/guidance/air-quality--3 Paragraph 001 Reference ID: 32-001-20191101 Revision 01 11 2019

Document/reference	Policy tests
	and/or breach legal obligations (including those relating to the conservation of habitats and species).”[143] In relation to mitigation, the PPG notes that *“mitigation options will need to be locationally specific, will depend on the proposed development and need to be proportionate to the likely impact. It is important that local planning authorities work with applicants to consider appropriate mitigation so as to ensure new development is appropriate for its location and unacceptable risks are prevented. Planning conditions and obligations can be used to secure mitigation where the relevant tests are met.”*
Local policies	
The London Plan (2021)[144]	**Policy SI 1 (B) (Improving air quality)** sets out the following criteria to be met by development proposals *“to tackle poor air quality, protect health and meet legal obligations:* *1) Development proposals should not:* *a) lead to further deterioration of existing poor air quality* *b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits* *c) create unacceptable risk of high levels of exposure to poor air quality.* *2) In order to meet the requirements in Part 1, as a minimum:* *a) development proposals must be at least Air Quality Neutral* *b) development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make*

[143] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available at https://www.gov.uk/guidance/air-quality--3 Paragraph 005 Reference ID: 32-001-20191101 Revision 01 11 2019

[144] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

Document/reference	Policy tests
	provision to address local problems of air quality in preference to post-design or retro-fitted mitigation measures *c) major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1 d) development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure."* As part of an air quality positive approach, **Policy SI 1 (C)** requires development proposals subject to an Environmental Impact Assessment to consider how local air quality can be improved across the area of the proposal by submitting a statement demonstrating: *"1) how proposals have considered ways to maximise benefits to local air quality, and* *2) what measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this."* **Policy SI 1 (E)** requires *"development proposals to ensure that where emissions need to be reduced to meet the requirements of Air Quality Neutral or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development."* **Policy T8 (Aviation) (B)** states that *"the environmental and health impacts of aviation must be fully acknowledged and aviation-related development proposals should include mitigation measures that fully meet their external and environmental costs, particularly in respect of air quality. Any airport expansion scheme must be appropriately assessed and if required demonstrate that there is an overriding public interest or*

Document/reference	Policy tests
	no suitable alternative solution with fewer environmental impacts." **Policy T8 (H)** supports *"development proposals if they would not lead to additional environmental harm or negative effects on health, nor impact on scheduled flight operations."*
Hillingdon Local Plan: Part 1 Strategic Policies (2012)[145]	**Policy EM8 (Land, water, air and noise)** states that: *"All development should not cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors.* *All major development within the Air Quality Management Area (AQMA) should demonstrate air quality neutrality (no worsening of impacts) where appropriate; actively contribute to the promotion of sustainable transport measures such as vehicle charging points and the increased provision for vehicles with cleaner transport fuels; deliver increased planting through soft landscaping and living walls and roofs; and provide a management plan for ensuring air quality impacts can be kept to a minimum.* *The Council may therefore require new major development in an AQMA to fund additional air quality monitoring stations to assist in managing air quality improvements."* **Policy T4 (Heathrow Airport)** recognises the economic importance of the airport to the borough and supports the sustainable operation of Heathrow within its present boundaries, whilst improving environmental conditions, for example local air quality for local communities.
Hillingdon Local Plan: Part 2 Development Management Policies (2020)[146]	**Policy DMEI 14 (Air quality) (A)** requires development proposals to *"…demonstrate appropriate reductions in emissions to sustain compliance with and contribute*

[145] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf

[146] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available at https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570

Document/reference	Policy tests
	towards meeting EU limit values and national air quality objectives for pollutants." **Policy DMEI 14 (B)** requires development proposals, "*…as minimum:* *i) be at least "air quality neutral";* *ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and* *iii) actively contribute towards the improvement of air quality, especially within the Air Quality Management Area."* **Policy DMT 1 (Managing transport impacts)** requires development proposals *"…to meet the transport needs of the development and address its transport impacts in a sustainable manner. In order for developments to be acceptable they are required to have no significant adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network."* **Policy DMAV 2 (iii) (Heathrow Airport)** supports development proposals within the Heathrow Airport boundary where they comply with Policy DMEI 14 (Air quality).
Other material considerations - Guidance	
London Plan Guidance Air Quality Neutral (2023)[147]	The guidance sets out how developments should be assessed for air quality neutrality by comparing the scheme against specified benchmarks for buildings and road traffic. Chapter 5 Mitigation and offsetting sets out that *if the [air quality] assessment shows that the development fails to meet one or both [Air Quality Neutral] benchmarks, details of the development should be amended to meet the benchmarks as a first step. This could include changes to the energy or transport strategies, or changes to the overall design of the development."*[148]

[147] Mayor of London (2023). London Plan Guidance Air Quality Neutral. Available from https://www.london.gov.uk/sites/default/files/2023-02/Air%20Quality%20Neutral%20LPG.pdf
[148] Mayor of London (2023). London Plan Guidance Air Quality Neutral. Available from https://www.london.gov.uk/sites/default/files/2023-02/Air%20Quality%20Neutral%20LPG.pdf paragraph 5.1.2

Document/reference	Policy tests
	Paragraph 5.1.3 of the guidance requires mitigation measures to be agreed following these principles: • *"Measures should be demonstrably effective and show how they will reduce local emissions or concentrations.* • *Measures should relate to the type of excess emissions (…)* • *The measures should be genuinely additional to all the measures already accounted for in the air quality assessment.* • *The measures should be in place by the time the development is occupied.* • *Implementation of the measures must be robustly secured via planning condition or legal agreement."* Paragraph 5.2.1 of the guidance explains that an offsetting payment may be agreed, "*at the discretion of the local planning authority*", "*if it is not possible to identify or agree appropriate and adequate mitigation measures."*
London Plan Guidance Air Quality Positive (2023)[149]	Paragraph 2.2.2 of the guidance requires *"full planning applications for large-scale developments subject to an EIA require the most specific and detailed commitments to Air Quality Positive measures. These applications must be accompanied by an AQP Statement, which should be submitted as part of the EIA at the planning application stage."* Paragraph 4.2.1 of the guidance sets out the minimum requirements that an AQP Statement will need to demonstrate to be compliant with the London Plan Policy SI 1: • *"it meets all the minimum content requirements outlined in Table 4.1[150]* • *there is evidence that air quality considerations have informed the design of the development*

[149] Mayor of London (2023). London Plan Guidance Air Quality Positive, Available from https://www.london.gov.uk/sites/default/files/2023-02/Air%20Quality%20Positive%20LPG.pdf
[150] Table 4.1 of the guidance sets out the AQP Statement structure as follows: Introduction

Document/reference	Policy tests
	• *the reasons for undertaking each measure are justified and appropriate to deliver benefits to air quality and/or a reduction in exposure to air pollution* • *the expected benefits to air quality are backed up by reasonable evidence* • *justification and evidence to support circumstances where measures have not been implemented, but could reasonably be expected* • *there is suitable evidence that measures are incorporated into the development application, i.e. evidence of assessment and/or reporting* • *there is a realistic mechanism to ensure the measures will be secured* • *there is a suitable implementation and monitoring plan for longer-term targets."*
London Borough of Hillingdon, Supplementary Planning Document, Planning Obligations (2014)[151]	Paragraph 5.11 of the Planning Obligations SPD explains that *"planning obligations may be sought for developments that are either in the AQMA or adjacent to the AQMA and considered likely to impact on the objectives to improve air quality."* Paragraph 5.12 of the Planning Obligations SPD describes the "…*circumstances that may establish a requirement for planning obligations*: • *As a recommendation of an air quality assessment;* • *To mitigate the impacts from emissions from new development where these cannot be resolved through other means such as planning conditions, travel plans or statutory licences;* • … • *To mitigate air quality impacts during the construction phase where these cannot be*

[151] Available at https://www.hillingdon.gov.uk/media/3291/Document-B---Planning-Obligations-SPD/pdf/rlDocument_B_-_Planning_Obligations_SPD.pdf?m=1598975715390

Document/reference	Policy tests
	controlled through conditions or other statutory licences."

9.2.2 As set out in the previous section, it is important to recognise that this application gives effect to government policy to implement the ending of the Cranford Agreement. Policies are relevant principally in relation to the consideration of mitigation, rather than the acceptability of the development.

9.2.3 The policies stress the importance of air quality and that it is likely to be particularly relevant where air quality is poor. In that context, in principle, the policies can generate issues under two headings. Consequently, policies:

- set tests for the acceptability of air quality effects; and
- encourage developments to limit or improve their air quality effects.

9.2.4 These two headings provide the structure for this Section of the Planning Statement.

9.2.5 London Plan Policy SI 1B summarises the first of these. Development proposals should not:

"a) lead to further deterioration of existing poor air quality

b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits

c) create unacceptable risk of high levels of exposure to poor air quality."

9.2.6 These are important tests to have in mind when considering the need for mitigation in relation to the effects of the development assessed in the ES. This is considered further in section 9.3 below.

9.2.7 The second category of policy is expressed through requirements for development to be 'air quality neutral', or 'air quality positive' – these requirements are considered in section 9.4 below.

9.2.8 Before considering the assessed effects of the Easterly Alternation Project, it is important to record the substantial improvement in air quality that has occurred in recent years and that is forecast to continue. In relation to the principal pollutant NO2, the objective referred to in policy is a maximum annual mean of 40 µg/m3. Table 6-6 of the **ES Chapter 6: Air Quality** the substantial improvement in air quality that all receptors around Heathrow (and elsewhere) have experienced in recent years as a result of a number of factors, including the enhanced performance of cars. Locally, it is also the result of a series of measures already introduced by Heathrow, including the NOx emissions element of aircraft landing charges, the introduction of electric vehicles and plant to the ground support fleet and funding a network of air quality monitoring stations around the Airport.

9.2.9 At the time of the last application for easterly alternation, air quality at a number of receptors was close to, at or beyond the objective. This is no longer the case: the maximum annual mean NO2 concentration at any modelled relevant receptor in 2028 is 24.3 µg/m3 or 61%

of the objective, at the receptor representing a property in Oaks Road, Stanwell. These factors have a direct impact on the need for mitigation (it is likely to be significantly reduced from when it was last considered in 2017).

9.2.10 The ES **Chapter 6: Air Quality** identifies (at paragraph 6.4.18) that Defra's predicted concentrations for 2028 do not identify any exceedances within the Heathrow study area.

9.3 Air quality effects

Policy compliance – air quality effects

9.3.1 The ES found no significant effects for air quality on human or ecological receptors.

9.3.2 There is, therefore, no prospect that planning policies which set tests to avoid creating significant air quality impacts could be breached.

9.3.3 When the previous application for easterly alternation was considered, the position was more marginal. The Inspector noted that *"the development would clearly produce changes in the spatial distribution of emissions around the airport. The main effects are anticipated to be the increased aircraft contribution to NOx in the Longford area to the northwest of the airport (that will in turn increase concentrations of NO2) and a reduction in NO2 concentrations in Stanwell at the western end of the southern runway."*[152] Whilst the Inspector recognised that *"it seems clear to me that there will be a worsening of the air quality at sensitive receptors within an AQMA and that around 93 residential properties would suffer…"*[153] he was not convinced that *"…there would actually be any breaches of the air quality objective."*[154] That conclusion can be much more comfortably reached now.

9.3.4 Having regard to the 'slight adverse' impacts predicted at only four properties for annual mean NO2 using the 2018 met year as the worst case scenario, it is clear that background concentrations have fallen dramatically since the previous decision, and the risk of an exceedance of any objectives in Longford does not arise.

9.3.5 The summary conclusion from **ES Chapter 6: Air Quality** is as follows:

"6.7.45 'Slight adverse' impacts are predicted at four properties for annual mean NO2 for a single met year. Impacts at all other receptors are predicted to be 'negligible'. Impacts on annual mean PM10 and PM2.5 are predicted to be 'negligible' at all receptors. No exceedances of any air quality objectives or the GLA PM2.5 target are predicted as a result of the Proposed Development. There is likely to be a direct, permanent, long-term, negligible residual effect, which could be both adverse or positive depending on the location, on air quality following the implementation of embedded measures. The overall effect is therefore considered to be not significant.

6.7.47 No additional mitigation measures are considered to be required".

[152] Inspector's Report paragraph 1124
[153] Inspector's Report paragraph 1159
[154] Ibid, paragraph 1159

9.3.6 Even if one was to apply the ANPS policy requirements, the Proposed Development does not require additional measures to manage the air quality effects within the existing Air Quality Management Area as the effects on air quality are so limited.

9.3.7 The Proposed Development also aligns with the NPPF which prevents new development from contributing to unacceptable levels of air pollution and requires planning decisions to sustain and contribute towards compliance with relevant limit values or national objectives for pollutants.

9.3.8 In respect to London Plan Policy SI 1 (B) Part 1, the air quality assessment also demonstrates that no exceedances of any air quality objectives or the GLA PM2.5 target are predicted as a result of the Proposed Development. Therefore, the Proposed Development will meet the criteria set out in the London Policy SI 1 (B) Part 1.

9.3.9 The Proposed Development will also comply with Policy T8; the air quality assessment identifies the very limited effect of easterly alternation in air quality terms, and the fact that the net effect on receptors is a small decrease in average exposure, which demonstrates that the Proposed Development overall will not result in adverse effects to human receptors.

9.3.10 The Proposed Development complies with Local Plan Policy EM8 which requires all developments not to cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors.

9.3.11 The air quality assessment has demonstrated overall that the environmental effects of the changes in concentrations of NO2, PM10 and PM2.5 due to Proposed Development by 2028 will be negligible and therefore the Proposed Development is considered to be in accordance with the Local Plan Policies DMEI 14 (A) and DMAV 2 (iii). Beyond 2028, any residual effects are forecast to reduce further.

9.3.12 In respect to the Local Plan Policy DMT 1, it has been demonstrated that the Proposed Development will not have a significant adverse transport or associated air quality impacts on the local and wider environment, and therefore will meet the criteria of the policy.

9.4 Air Quality Neutral and Air Quality Positive

Air Quality Neutral

9.4.1 Air quality neutrality is a requirement of London Plan Policy SI 1B and LB Hillingdon's Policy EM8. It does not, however, apply to the Proposed Development.

9.4.2 As the London Plan explains, at paragraph 9.1.9, air quality neutrality is concerned with meeting Air Quality Benchmarks, which are set out in Guidance. The relevant guidance (London Plan Air Quality Neutral Guidance, 2023) explains that its purpose is to minimise emissions from transport and from buildings (i.e. operational emissions). Under the heading 'What is Air Quality Neutral?' the Guidance explains at paragraph 1.1:

"An Air Quality Neutral development is one that meets, or improves upon, the Air Quality Neutral benchmarks set out in this document. These benchmarks set out the maximum allowable emissions of NOx and particulate matter based on the size and use class of the proposed development."

9.4.3 The Proposed Development does not involve the construction or operation of buildings and the Building Emissions Benchmarks ('BEB'), which are concerned with emissions from equipment used to supply heat and energy to the buildings, therefore do not apply. Equally, the Transport Emission Benchmarks ('TEBs') specified in the Air Quality Neutral guidance, are based on the number of trips generated by different land-use classes. The use classes do not include airports but, in any event, the Proposed Development does not involve any change in road traffic from the airport operations.

Air Quality Positive

9.4.4 Table 15 above sets out how the London Plan policy SI 1B and its associated Guidance requires development to be accompanied by a statement which sets out how air quality considerations have been taken into account in scheme design. Its purpose is to capture good practice and make sure that developments contribute where practical through their design to improving air quality.

9.4.5 That statement is set out in **ES Chapter 6: Air Quality** from paragraph 6.5.45. It records how air quality considerations were part of the Government's assessment in deciding to end the Cranford Agreement and how Heathrow has developed and successfully implemented air quality strategies to improve air quality in its airport operations.[155] **The Design and Access Statement** submitted with this application explains how air quality issues were influential in determining the design of the airfield infrastructure in this case to limit air quality impacts at Longford.

9.5 Conclusion

9.5.1 The air quality assessment undertaken in **ES Chapter 6: Air Quality** for the Proposed Development concludes that no significant air quality effects are predicted. The air quality effects of implementing easterly alternation are negligible.

9.5.2 Overall, the Proposed Development results in small increases in NO2 concentrations in Longford, with four properties in Longford experiencing 'slight adverse' impacts in the worst-case met year, but small decreases in NO2 concentrations in Stanwell and Stanwell Moor. The increases in Longford are slightly larger in magnitude than the decreases in Stanwell but affect a smaller number of properties. In terms of the population-average change in concentrations across the study area (see **ES Chapter 6: Air Quality** paragraph 6.5.26), the overall net effect is a small decrease in average exposure of 0.01 µg/m3, representing a small beneficial residual effect.

9.5.3 No additional mitigation measures are considered to be required to manage the air quality effects of the Proposed Development, although mitigation measures already in place to manage air quality in the vicinity of Heathrow Airport (e.g. in Heathrow Airport's Emissions

[155] Heathrow has in place the Heathrow 2.0 Emissions Strategy and Action Plan which aligns with LB Hillingdon Air Quality Action Plan 2019-2024 to further reduce airport related traffic and mitigate adverse air quality impacts associated with on-airport operations.

Strategy and Action Plan, the London Borough of Hillingdon's Air Quality Action Plan, (and the action plans of other local authorities) should be continued.

9.5.4 Air quality has improved markedly in the area since the time of the previous application and there is no prospect of air quality limits being approached, let alone exceeded. The assessment is undertaken for the 2028 year of opening and represents a worst case. Effects are forecast to reduce further beyond that date.

9.5.5 All national, London wide and local air quality policies are met.

10. OTHER ENVIRONMENTAL TOPICS (CARBON, HISTORIC ENVIRONMENT, BIODIVERSITY AND FLOOD RISK)

10.1 Introduction

10.1.1 This Chapter provides an assessment of the Proposed Development against relevant planning policy tests taking into account the conclusions arising from the assessment of other environmental topics.

10.2 Carbon

10.2.1 As the application involves no increase in flights or passengers, it has been agreed with LB Hillingdon that there is no prospect of there being any likely significant effects arising from the greenhouse gas impacts of the development but that it would be appropriate to consider the carbon effects of construction and the conformity of Heathrow's approach with relevant policy.

10.3 Principal policies

10.3.1 **Table 16** below sets out the principal planning policies tests relating to the assessment of the total embodied carbon associated with the Proposed Development during the construction process.

Table 16 – Principal planning and policy guidance tests

Document/reference	Policy tests
National Planning Policy Framework ('NPPF') (2023)[156]	**Paragraph 159 (b)** requires new development to be *"planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design."*
The London Plan (2021)[157]	**Policy SI 2 (Minimising greenhouse gas emissions) Part (A)** sets out that: *"Major development should be net zero-carbon. This means reducing greenhouse gas emissions in operation and minimising both annual and peak energy*

[156] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available at https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

[157] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

Document/reference	Policy tests
	demand in accordance with the following energy hierarchy: *1) be lean: use less energy and manage demand during operation* *2) be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly* *3) be green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site* *4) be seen: monitor, verify and report on energy performance."* **Part (B)** of the policy requires major development proposals to include a detailed energy strategy to demonstrate how the zero-carbon target will be met. The associated targets are defined in **Policy SI 2 Part (C)**. There is a minimum requirement of at least 35% beyond Building Regulations on-site carbon reduction to be achieved, with non-residential development proposals required to achieve 15% through energy efficiency measures. It also allows for any carbon shortfall to be paid as a cash-in-lieu contribution into the relevant local authority's carbon offset fund. In this respect, Policy SI 2 Part (C) sets out that: *"Where it is clearly demonstrated that the zero-carbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough, either:* *1) through a cash in lieu contribution to the borough's carbon offset fund, or* *2) off-site provided that an alternative proposal is identified and delivery is certain."* **Policy SI 2 Part (E)** requires major development proposals to *"…calculate and minimise carbon emissions from any other part of the development, including plant or equipment, that are not covered by Building Regulations, i.e. unregulated emissions."*

Document/reference	Policy tests
	Part F provides that "*development proposals referable to the Mayor should calculate whole life-cycle carbon emissions through a nationally recognized Whole Life-Cycle Assessment and demonstrate actions taken to reduce life-cycle carbon emissions*."
Hillingdon Local Plan: Part 1 Strategic Policies (2012)[158]	**Policy EM1 (Climate change adaptation and mitigation) (3)** ensures *"that climate change mitigation is addressed at every stage of development process by ensuring development meets the highest possible design standards whilst still retaining competitiveness within the market."*
Hillingdon Local Plan: Part 2 Development Management Policies (2020)[159]	**Policy DMEI 2 (Reducing carbon emissions)** sets out that: *"A) All developments are required to make the fullest contribution to minimising carbon dioxide emissions in accordance with London Plan targets.* *B) All major development proposals must be accompanied by an energy assessment showing how these reductions will be achieved.* *C) Proposals that fail to take reasonable steps to achieve the required savings will be resisted. However, where it is clearly demonstrated that the targets for carbon emissions cannot be met onsite, the Council may approve the application and seek an off-site contribution to make up for the shortfall."*
Other material considerations - Guidance	
London Plan Guidance Whole Life-Cycle Carbon Assessment 'WLC') (2020)[160]	The guidance *"requires to all applications for referable development to submit a WLC. However, it also*

[158] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf
[159] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available at https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570
[160] Mayor of London (2022). London Plan Guidance Whole Life-Cycle Carbon Assessment, Available at https://www.london.gov.uk/sites/default/files/lpg_-_wlca_guidance.pdf

Document/reference	Policy tests
	encourages WLC assessments on non-referable major developments."[161] The guidance explains the calculation requirements of WLC emissions resulting both from the construction and use of a building over its entire life. The WLC requires the applicant to calculate the building operational carbon and its embodied carbon[162] to demonstrate how WLC emissions can be reduced. Paragraph 2.4.1 sets out the required information that should be covered by the WLC assessments, including: *"• any carbon emissions associated with pre-construction demolition* *• any carbon savings associated with the retention, reuse and recycling of existing structures and materials that are already on-site* *• its operational carbon emissions (both regulated and unregulated)* *• its embodied carbon emissions* *• any future potential carbon savings post end-of-life, including savings from reuse and recycling of building structure and materials."*

10.3.2 The principal policy relevant here is London Plan Policy SI 2 Minimising Greenhouse Gas Emissions. The policy has 6 parts (A to F). Its principal objective is for major developments to be net zero-carbon and it explains that "*this means reducing greenhouse gas emissions in operation and minimising both annual and peak* energy *demand in accordance with the following energy hierarchy*…"

10.3.3 Accordingly, parts A to E of the policy set requirements for energy efficiency in building operation and use. Where new buildings cannot demonstrate that they have been designed to meet the requirements set out in the policy for net zero carbon in use (for instance through high thermal insulation in construction or efficient energy systems in use), Part C requires a calculation of the shortfall and either payment in lieu to a carbon offset fund or a commitment to equivalent carbon saving initiatives off-site. These provisions do not apply

[161] GLA's Whole Life Carbon Assessments, page 1
[162] According to the guidance, embodied carbon emissions are *emissions associated with raw material extraction, the manufacture and transport of building materials, and construction; and the emissions associated with maintenance, repair and replacement, as well as dismantling, demolition and eventual material disposal.*

to the Proposed Development, however, as it does not propose the construction and use of buildings.

10.3.4 Part F is potentially relevant to applications which are referable to the Mayor of London, which is not the case with this application. However, it is helpful to recognise its terms. It provides:

"F Development proposals referable to the Mayor should calculate whole-life cycle carbon emissions through a nationally recognised Whole Life-cycle Carbon Assessment and demonstrate actions to reduce life-cycle emissions."

10.3.5 For the reasons set at in **Section 3**, the Proposed Development does not meet the criteria to be referable to the Mayor and the policy does not apply. Nevertheless, paragraph 9.2.11 of the London Plan encourages other applications to undertake a similar assessment and LB Hillingdon requested such an assessment in pre-application discussions. Heathrow has been pleased to do so and has provided the **Whole Life Carbon Assessment** as part of this application.

10.3.6 The London Plan Guidance on Whole Life Carbon Assessments confirms at paragraph 1.2.2 that:

"The WLC requirement is not subject to the Mayor's net zero-carbon target; but planning applicants [for referable developments] are required to calculate operational and embodied emissions, and demonstrate how they can be reduced as part of the WLC assessment."

10.3.7 Heathrow has undertaken such a calculation in the **Whole Life Carbon Assessment** submitted with the application.

Conclusions from the Whole Life Carbon Assessment

10.3.8 The **Whole Life Carbon Assessment** provides the Applicant's assessment of the total embodied carbon associated with the Proposed Development.

10.3.9 In terms of results, Section 4 of the **Whole Life Carbon Assessment** explains that, due to the nature of the Proposed Development, the majority of expected carbon emissions result from the embodied emissions in construction materials and their transport to site. The following table summarises the key construction materials that will be used in the Proposed Development (as referenced in the separate **Construction Environmental Management Plan**) and that contribute to the total embodied carbon emissions. A summary of the Construction Phase assessment is provided in **Table 17**.

*Table 17 – Emissions corresponding to construction (**Table 4.2 Whole Life Carbon Assessment Report**)*

Building Element	Building material	Total material emissions (tCO_2e)	Construction emissions (tCO_2e)	Transport emissions (tCO_2e)	Total (tCO_2e)
Noise Barrier	Concrete (general)	118	26	24	944

Building Element	Building material	Total material emissions (tCO_2e)	Construction emissions (tCO_2e)	Transport emissions (tCO_2e)	Total (tCO_2e)
	Steel (hot dipped galvanized)	167			
	Timber (softwood)	50			
	Glass reinforced plastic	561			
Ground Works	Pavement quality concrete	6,823	307	1,359	12,409
	Wet lean concrete	865			
	Roller Compacted Concrete	1,214			
	Asphalt	1,841			
Total		**11,637**	**332**	**1,383**	**13,353**

10.3.10 Section 5 of the **Whole Life Carbon Assessment** concludes that total GHG emissions in the construction phase are estimated at 13,353 tCO_2e. Of these the majority are associated with ground works (12,409 tCO_2e – 93%) with the remaining 7% (944 tCO_2e) relating to the noise barrier. Primary materials account for 87% of the total ground works emissions. Over half (51%) of emissions associated with the Proposed Development are associated with the embodied carbon of Pavement Quality Concrete.

Assessment

10.3.11 As requested, a Whole Life Carbon Assessment has been undertaken in accordance with best practice, with the results set out in the **Whole Life Carbon Assessment** provided as part of the application. As set out above, net zero policies apply to buildings in use, rather than to construction and there is no policy consequence of the small scale of carbon emissions calculated for the construction of the easterly alternation infrastructure. It is also agreed through the ES Scoping process that no likely significant effects arise in this case from the scale of carbon emissions.

10.3.12 Minimising carbon is a core objective of Heathrow, however, and all carbon impacts of works and operations are taken into account in Heathrow's own commitment to net zero.

10.3.13 The approach to construction in this case involves commitment to a series of best practice measures which are set out in paragraphs 6.4.29-6.4.31 of the **Construction Environmental Management Plan**, which provides details in relation to the potential for low carbon concrete to be used in the construction of the Proposed Development, together with measures to minimise waste, source materials locally and to drive local carbon solutions through the construction process.

Conclusions

10.3.14 The policy requirements are met.

10.4 Historic Environment

10.4.1 Historic Environment was scoped out of the ES by LB Hillingdon as part of the formal Scoping Opinion (February 2024), in the following terms:

"11.1. The impacts on the historic environment are considered likely to be minimal as concluded within the previous assessment:

On balance the effect of construction on the potential buried archaeological resource is not considered to be significant. (8.8.7, 2013 ES)

On balance the operational effect on sensitive heritage assets is not considered to be significant. (8.9.4, 2013 ES)

11.2. It is acknowledged that a proposed noise barrier in Longford could have a detrimental impact on the conservation area, but this alone does not reach threshold of achieving a likely significant effect when applying the criterion in the Regulations.

11.3. Consequently, the impacts on the conservation area would be akin to normal development and not of an exceptional level that would undermine the designation to a significant extent….

11.5. Similarly, the archaeological impacts of the construction work were assessed previously and deemed to have low likely impact. There is nothing substantially different about this submission to warrant an alternative approach."

10.4.2 However, LB Hillingdon requested that effects on the historic environment be considered as a planning consideration.

10.4.3 Notwithstanding the conclusions of the ES Scoping process, Heathrow has voluntarily included an assessment of likely significant effects on the historic environment in the **ES Chapter 11: Historic Environment**. As explained in the ES **Chapter 11: Historic Environment** (at paragraph 11.1.2), these matters are of potential interest to stakeholders.

Principal policies

10.4.4 **Table 18** below sets out the principal planning policies tests relating to the assessment of heritage issues. This includes text within the ANPS, although that text was drafted to apply to proposals for a North West runway at Heathrow.

Table 18 – Principal planning and policy guidance tests

Document/reference	Policy tests
Airports National Policy Statement (2018)[163]	**Paragraph 5.193** of the ANPS *"as part of the environmental assessment, the applicant should provide a description of the significance of the heritage assets affected by the proposed development, and the contribution of their setting to that significance. The level of detail should be proportionate to the asset's importance, and no more than is sufficient to understand the potential impact of the proposal on the significance of the asset. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. At a minimum, the relevant Historic Environment Record should be consulted and the heritage assets assessed using appropriate expertise...The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage asset affected can be adequately understood from the application and supporting documents."*
National Planning Policy Framework ('NPPF') (2023)[164]	**Paragraph 200** requires *"applicants to describe the significance of any heritage assets affected, including any contribution made by their setting. …Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."* **Paragraph 206** requires applicants to provide clear and convincing justification in case of harm to, or loss of, the significance of a designated heritage asset. **Paragraph 208** requires that: *"Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use."*

[163] Department for Transport (2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Available at https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

[164] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available from https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

Document/reference	Policy tests
Planning Practice Guidance ('PPG)[165]	Paragraph 041 of the PPG 'Historic environment' sets out that applicants are required to submit an appropriate desk-based assessment and, where necessary, a field evaluation *"where an initial assessment indicates that the site on which development is proposed includes or has potential to include heritage assets with archaeological interest."*
The London Plan (2021)[166]	**Policy HC1 (Heritage conservation and growth) Part (C)** requires that *"development proposals affecting heritage assets, and their settings, should conserve their significance, by being sympathetic to the assets' significance and appreciation within their surroundings. The cumulative impacts of incremental change from development on heritage assets and their settings should also be actively managed. Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process."* **Part (D)** of the policy requires "*development proposals to identify assets of archaeological significance and use this information to avoid harm or minimise it through design and appropriate mitigation. Where applicable, development should make provision for the protection of significant archaeological assets and landscapes."*
Hillingdon Local Plan: Part 2 Development Management Policies (2020)[167]	**Policy DMBH 1 (Heritage assets)** requires *"development proposals to avoid harm to the historic environment. Development that has an effect on heritage assets will only be supported where:* *i) it sustains and enhances the significance of the heritage asset and puts them into viable uses consistent with their conservation;* *ii) it will not lead to a loss of significance or harm to an asset, unless it can be demonstrated that it will provide*

[165] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available from https://www.gov.uk/guidance/air-quality--3
[166] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available from https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf
[167] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available from https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570

Document/reference	Policy tests
	public benefit that would outweigh the harm or loss, in accordance with the NPPF; *iii) it makes a positive contribution to the local character and distinctiveness of the area;* *(…)* *v) the proposal would relate appropriately in terms of siting, style, scale, massing, height, design and materials;* *vi) buildings and structures within the curtilage of a heritage asset, or in close proximity to it, do not compromise its setting; and vii) opportunities are taken to conserve or enhance the setting, so that the significance of the asset can be appreciated more readily."* **Policy DMHB 4 (Conservation areas)** states that *"new development within a Conservation Area or on its fringes, will be expected to preserve or enhance the character or appearance of the area. It should sustain and enhance its significance and make a positive contribution to local character and distinctiveness. In order to achieve this, the Council will:* (…) *B) Resist the loss of buildings, historic street patterns, important views, landscape and open spaces or other features that make a positive contribution to the character or appearance of the Conservation Area; any such loss will need to be supported with a robust justification.* *C) Proposals will be required to support the implementation of improvement actions set out in relevant Conservation Area Appraisals and Management Plans."* **Policy DMHB 7 (Archaeological Priority Areas and Archaeological Priority Zones)** states that: *"The Council, as advised by the Greater London Archaeological Advisory Service, will ensure that sites of archaeological interest within or, where appropriate, outside, designated areas are not disturbed. If that cannot be avoided, satisfactory measures must be*

Document/reference	Policy tests
	taken to mitigate the impacts of the proposals through archaeological fieldwork to investigate and record remains in advance of development works. This should include proposals for the recording, archiving and reporting of any archaeological finds."

10.4.5 **Chapter 11: Historic Environment of the Environmental Statement** provides an assessment of the potential effects of the Proposed Development on the historic environment. This includes historic buildings and areas, historic landscape character and buried archaeological remains. Such effects could be in the form of a direct physical impact leading to loss of, or damage to, the heritage asset, or harm to the significance of the asset resulting from change within its setting.

Designated Heritage Assets

10.4.6 There are no designated heritage assets within the area of the new airfield infrastructure or the noise barrier (Figure 11.1 in **Appendix 11.2: Historic Environment Figures of the ES**). The only designated heritage assets within the 500m historic environment Study Area include the Longford Village Conservation Area and listed buildings, which are described in Table 11.4 of the **ES Chapter 11: Historic Environment**.

10.4.7 A desk based archaeological assessment has been carried out and is provided in **Appendix 11.1: Archaeological Desk Based Assessment of the ES**. The assessment identified a low potential for the presence of archaeological remains of palaeolithic or Mesolithic date but a medium to high potential for the presence of archaeological remains of Neolithic, Bronze Age, Iron Age and Romano-British date to present within the area of the new airfield infrastructure. However, the assessment finds that any remains present are more likely to represent areas of associated field systems and are also likely to have been subject to some degree of truncation and fragmentation due to previous development of airport infrastructure. It is therefore considered that any remains present would be of low heritage significance. There is a low potential for the presence of archaeological remains of medieval or post-medieval date.

10.4.8 The footprint of the noise barrier is not anticipated to contain any archaeological remains as a result of previous development occurring in the area and informed by previous archaeological investigations.

10.4.9 The new airfield infrastructure will entail excavations and earth movements with excavation to a depth of approximately 1m for the hard-surfaced areas and approximately 2m for drainage connections. The works effectively replicate or replace works already undertaken at the airfield. Where archaeological features have been previously recorded within the Airport, they have been recorded at the junction of the topsoil and the subsoil (natural gravel deposits).

10.4.10 Paragraphs 11.7.2-11.7.10 in **Chapter 11: Historic Environment of the Environmental Statement** describe the predicted effects and their significance on archaeological remains.

There will be no effect on archaeology as a result on construction of the noise barrier, and within the site of the new airfield infrastructure any disturbance is anticipated to be of low heritage significance. No mitigation or further examination is necessary.

Conservation Area

10.4.11 **Chapter 11: Historic Environment of the ES** contains an appraisal of the history, development and character of the Longford Village Conservation Area. In relation to Longford Village Conservation Area, viewpoints were selected to consider the effects of the noise barrier on the conservation area. These were informed by LB Hillingdon's Conservation Area Appraisal, which identified key views within the Conservation Area but which found that, other than one view to the woodland alongside the River Colne, there are no outward views from within Longford Village Conservation Area which are identified as key views.

10.4.12 The ES assessment identifies that the noise barrier would be theoretically visible from limited parts of Longford Village Conservation Area, with most visibility from along the south-eastern edge of the conservation area. The viewpoint from the Padbury Office Complex (Figure 10.5a-b in **Appendix 10.3: LVIA Figures of the ES**) shows the clearest view of the noise barrier from within the Conservation Area, but this shows it in the context of existing airport fencing and the elevated rails of the POD transport system which connects Terminal 5 to the Terminal 5 Business Car Park. The noise barrier would not be seen in the internal key views within Longford Village Conservation Area that are identified in the LB Hillingdon's Conservation Area Appraisal, or from any of the listed buildings within it.

10.4.13 **ES Chapter 11: Historic Environment** concludes in this context:

"11.7.15 Longford Village Conservation Area is of high heritage significance (…), but as a result of the lack of outward visibility of the noise barrier from within the conservation area, there would be no effect on its heritage significance. The historic 'village' character of the conservation area aligned along Bath Road and The Island would be maintained."

Assessment

10.4.14 These conclusions are in line with the conclusions of the Inspector and the Secretaries of State in the previous planning application. Despite some limited harm to the Longford Village Conservation Area due to the noise barrier component of the previous proposals, the Inspector found that:

"Insofar as the nearby conservation area (CA) is concerned I agree with HAL that Longford village tends to 'turn its back' on the airport and that, in addition, much of the south eastern boundary of the CA is quite heavily vegetated. I am also conscious that a number of areas immediately to the south of the CA boundary already appear somewhat utilitarian. In consequence, and despite the barrier causing some limited harm to the general character and appearance of the area, I do not consider that the proposed noise barrier would affect the significance of the nearby CA."[168]

[168] Inspector's Report paragraph 971

10.4.15 The Secretaries of State agreed with the Inspector that *"the proposed barrier would not affect the significance of the nearby conservation area."*[169]

10.4.16 In terms of policy compliance, in accordance with the requirements of paragraph 200 of the NPPF and the PPG the planning application is supported by a description of the significance of the assets affected by the Proposed Development including an **Archaeology Desk Study** (**ES Appendix 11.1**).

10.4.17 The Proposed Development accords with requirements of London Plan Policy HC1 and Local Plan Policy DMBH 1, DMBH 4 and DMHB 7 by avoiding significant harm to designated and non-designated assets.

10.4.18 The design of the noise barrier is explained in the **Design and Access Statement** and has taken account of the need to limit harm to the character of the area and the character of the Conservation Area.

10.4.19 The assessment in **ES Chapter 11: Historic Environment** concludes that there would be no adverse effects on the character of the Conservation Area or the setting of listed buildings. In relation to archaeology, it identifies minor negative, not significant effects through the potential disturbance of archaeological assets through construction works on the airfield. In accordance with paragraph 208 of the NPPF, where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal. In this case, the public benefits of implementing government policy to bring greater fairness to the distribution of air noise around Heathrow substantially exceed the very limited, potential heritage harm.

10.5 Conclusions

10.5.1 The Applicant has followed an exemplary approach to ensure that no harm arises to designated or non-designated heritage assets from the Proposed Development and has considered the matter in detail notwithstanding that it was scoped out of the ES. The assessment confirms that the application complies with all relevant policies.

10.6 Biodiversity (including Arboricultural Impact Assessment and Habitats Regulations Assessment)

10.6.1 Matters related to biodiversity are assessed in **Chapter 12: Biodiversity of the ES**. Biodiversity was not a reason for refusal of the previous planning application, but it is nevertheless an important consideration.

10.6.2 The South West London Waterbodies to the west of the airport are particularly significant and are designated as a Special Protection Area ('SPA') and Ramsar site. A number of other European designated sites lie in the wider area, including the Windsor Forest and Great Park Special Area of Conservation ('SAC').

[169] Secretaries of State decision paragraph 13. Note that, whilst the barrier now proposed is taller in part and slightly extended compared with that considered at the inquiry, the visibility of the barrier is comparable and the principles are the same.

10.6.3 The ES considers potential effects from the construction and operation of the Proposed Development. Additionally, an HRA Screening Report and a Report to Inform Appropriate Assessment have been prepared and provided as **Appendix 12.2** and **Appendix 12.1** of the ES respectively.

10.6.4 For the purposes of this assessment of biodiversity effects, two separate Study Areas, a "Core Biodiversity Study Area" and an "Extended Biodiversity Study Area", have been used when identifying potential effects relating to the construction and operational phases of the Proposed Development, in particular, with respect to European Sites.

Principal policies

10.6.5 The **Table 19** below sets out the principal planning policy tests relating to the assessment of biodiversity associated with the Proposed Development during the construction process and its operation. Again, the ANPS policy tests have been included for information, although they were drafted to apply to proposals for a North West runway.

Table 19 – Principal planning and policy guidance tests

Document/reference	Policy tests
Airports National Policy Statement (2018)[170]	5.89 The applicant should ensure that the environmental statement submitted with its application for development consent clearly sets out any likely significant effects on internationally, nationally and locally designated sites of ecological or geological importance, protected species, and habitats and other species identified as being of principal importance for the conservation of biodiversity. As a general principle, and subject to the specific policies set out below and the Infrastructure Planning (Decisions) Regulations 2010, development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The applicant may also wish to make use of biodiversity offsetting in devising compensation proposals to counteract any impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort appropriate compensation measures should be sought.

[170] DfT (2018). Airports National Policy Statement: new runway capacity and infrastructure at airports in the south-east of England. Available from https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf

Document/reference	Policy tests
	The development consent order, or any associated planning obligations, will need to make provision for the long term management of such measures.
National Planning Policy Framework ('NPPF') (2023)[171]	**Paragraph 180 (d)** requires decisions to contribute and enhance the natural environment by "*minimising impacts on and providing net gains for biodiversity".* **Paragraph 136** requires *"…that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible."*
Planning Practice Guidance ('PPG')[172]	Paragraph 001 of the PPG 'Biodiversity net gain' explains that in England biodiversity net gain is required under a statutory framework introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021). The PPG further explains that "*under the statutory framework every grant of planning permission is deemed to have been granted subject to the condition that the biodiversity gain objective is met ("the biodiversity gain condition"). This objective is for development to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the onsite habitat. This increase can be achieved through onsite biodiversity gains, registered offsite biodiversity gains or statutory biodiversity credits."* Paragraph 011 identifies the minimum information required to be submitted by an applicant as part of a planning application that would be subject to the biodiversity gain condition: • *"confirmation that the applicant believes that planning permission, if granted, the development would be subject to the biodiversity gain condition;*

[171] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available from https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf
[172] Ministry of Housing, Communities & Local Government, (2019). *Planning Practice Guidance* [online]. Available from https://www.gov.uk/guidance/biodiversity-net-gain

Document/reference	Policy tests
	• *the pre-development biodiversity value(s), either on the date of application or earlier proposed date (as appropriate);* • *where the applicant proposes to use an earlier date, this proposed earlier date and the reasons for proposing that date;* • *the completed metric calculation tool showing the calculations of the pre-development biodiversity value of the onsite habitat on the date of application (or proposed earlier date) including the publication date of the biodiversity metric used to calculate that value;* • *a statement whether activities have been carried out prior to the date of application (or earlier proposed date), that result in loss of onsite biodiversity value ('degradation'), and where they have:* • *a statement to the effect that these activities have been carried out;* • *the date immediately before these activities were carried out;* • *the pre-development biodiversity value of the onsite habitat on this date;* • *the completed metric calculation tool showing the calculations, and* • *any available supporting evidence of this;* • *a description of any irreplaceable habitat (as set out in column 1 of the Schedule to the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) on the land to which the application relates, that exists on the date of application, (or an earlier date); and plan(s), drawn to an identified scale and showing the direction of North, showing onsite habitat existing on the date of application (or earlier proposed date), including any irreplaceable habitat (if applicable).*

Document/reference	Policy tests
The London Plan (2021)[173]	**Policy G6 Part (A) (Biodiversity and access to nature)** sets out that "*Sites of Importance for Nature Conservation (SINCs) should be protected.*" **Part (C)** of the policy states that: *"Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:* *1) avoid damaging the significant ecological features of the site* *2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site* *3) deliver off-site compensation of better biodiversity value."* **Policy G6 Part (D)** requires development proposals to *"manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process."* **Policy G7 (Trees and woodlands) Part (C)** requires development proposals, wherever possible, to retain existing trees of value[174]. *If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed (…) determined by appropriate valuation system. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy."*

[173] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available from https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf
[174] London Plan footnote 140 states that *"Category A, B and lesser category trees where these are considered by the local planning authority to be of importance to amenity and biodiversity, as defined by BS 5837:2012"*

Document/reference	Policy tests
Hillingdon Local Plan: Part 1 Strategic Policies (2012)[175]	**Policy EM7 (2) (Biodiversity and geological conservation)** seeks to protect and enhance all Sites of Importance for Nature Conservation. Policy also requires Sites with Metropolitan and Borough Grade 1 importance to be protected from any adverse impacts and loss. **Policy EM7 (4)** seeks *"appropriate contributions from developers to help enhance Sites of Importance for Nature Conservation in close proximity to development and to deliver/ assist in the delivery of actions within the Biodiversity Action Plan."* **Policy EM7 (5)** requires *"the provision of biodiversity improvements from all development, where feasible."*
Hillingdon Local Plan: Part 2 Development Management Policies (2020)[176]	**Policy DMEI 7 (Biodiversity protection and enhancement)** requires: *"A) The design and layout of new development should retain and enhance any existing features of biodiversity or geological value within the site. Where loss of a significant existing feature of biodiversity is unavoidable, replacement features of equivalent biodiversity value should be provided on-site. Where development is constrained and cannot provide high quality biodiversity enhancements on-site, then appropriate contributions will be sought to deliver off-site improvements through a legal agreement.* *B) If development is proposed on or near to a site considered to have features of ecological or geological value, applicants must submit appropriate surveys and assessments to demonstrate that the proposed development will not have unacceptable effects. The development must provide a positive contribution to the protection and enhancement of the site or feature of ecological value.* *(…)*

[175] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf

[176] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available from https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570

Document/reference	Policy tests
	D) Proposals that result in significant harm to biodiversity which cannot be avoided, mitigated, or, as a last resort, compensated for, will normally be refused." **Policy DMHB 14 (Trees and landscaping) (A)** requires all developments *"to retain or enhance existing landscaping, trees, biodiversity or other natural features of merit."* In paragraph (B) the policy requires development proposals *"to provide a landscape scheme that includes hard and soft landscaping appropriate to the character of the area, which supports and enhances biodiversity and amenity particularly in areas deficient in green infrastructure."*

10.6.6 The Proposed Development would involve some loss of vegetation to construct the noise barrier and the airfield works would cause the loss of some managed grassland.

10.6.7 A series of mitigation measures are embedded in the application and committed to through the **CEMP**, the terms of which have been significantly influenced by the topic specialists undertaking the EIA. In relation to ecology and biodiversity, these are summarised at Section 12.4 of **Chapter 12: Biodiversity of the Environmental Statement** and include best practice in construction, lighting, and in the timing, sequence and nature of vegetation removal.

Conclusions from the ES

10.6.8 **Chapter 12: Biodiversity of the Environmental Statement** provides as assessment of effects with respect to biodiversity and impacts on trees arising from the Proposed Development. The **ES Chapter 12: Biodiversity** identifies 10 statutory designated nature conservation sites within the Core and Extended Biodiversity Study Areas, with the closest site South West London Waterbodies SPA and Ramsar located approximately 1.7km from the location of the Proposed Development. Three non-statutory designated sites were identified within the Core Biodiversity Study Area. The Lower Colne Site of Importance for Nature Conservation (SINC) crosses the proposed noise barrier which it is coincident with a preexisting DNR channel (this have now been diverted and infilled).

10.6.9 Table 12.6 of the **Chapter 12: Biodiversity of the Environmental Statement** provides a summary of the statutory and non-statutory designated sites identified on site and a comparison between the previous planning application baseline and 2017-2019 and 2023 baselines. The habitats on airfield comprise hard surfaced areas and managed grassland and are considered to be of low quality overall and of limited conservation value. Off airfield, the habitats in the vicinity of the noise barrier are identified to be common and widespread within the surrounding area.

10.6.10 Nearby the noise barrier component of the Proposed Development is the Twin Rivers Biodiversity Site, which forms part of Heathrow's network of biodiversity sites which provide over 175 hectares of habitat which are managed for biodiversity and are accredited under the Wildlife Trusts Biodiversity Benchmark[177].

10.6.11 Section 4.5 of the **Appendix 12.6: Arboricultural Impact Assessment of the Environmental Statement** describes the compensation planting approach that will be implemented as result of the removal of the arboricultural features (see further information below).

Assessment

10.6.12 In accordance with the NPPF and national guidance, London Plan Policy G6 and Local Plan Policy DMEI 7 the potential environmental effects on ecology and nature conservation arising from the Proposed Development have been considered based upon information gathered and the analysis and assessments undertaken within various different baselines.

10.6.13 The identification of activities and potential effects that may result from the construction and operation of the Proposed Development are identified in paragraph 12.5.3 and a summary is provided in Table 12.6 of **Chapter 12: Biodiversity of the Environmental Statement.**

10.6.14 Detailed assessments have been undertaken of the potential for impacts from changes in air quality or from disturbance from aircraft noise affecting the South West London Waterbodies, and at Wraysbury SSSI and Staines Moor SSSIs. The assessments conclude the magnitude of change in each case would be Very Low, resulting in a negligible effect that is not significant.

10.6.15 Protected species assessments concluded that the Proposed Development and immediately adjacent areas have suitability to support grass snake, nesting birds, commuting and foraging bats, and otter. The design of the Proposed Development and the embedded environmental measures set out in the **CEMP** have focused on avoiding important habitat for the species, minimising potential for injury, killing, disturbance, and displacement of individuals. Measures include the completion of pre-works checks for the presence of reptiles and nesting birds prior to vegetation clearance taking place and the development of a precautionary method statement for reptiles, bats, and otters.

10.6.16 The assessment has not identified any significant effects on biodiversity receptors as a result of the Proposed Development across either the construction or operational phases.

10.7 Trees

10.7.1 **Appendix 12.6: Arboricultural Impact Assessment of the Environmental Statement** provides an assessment of the effects on trees due to the construction of the noise barrier component of the Proposed Development. The assessment has been informed by desk based and walkover surveys. Table 3.1 of **Appendix 12.6: Arboricultural Impact Assessment** summarises the number of arboricultural features surveyed and their quality categories. Taking into account the assumed working area along the length of the noise

[177] The Wildlife Trusts (2024). Biodiversity Benchmark. Available from https://www.wildlifetrusts.org/partnerships/working-businesses/biodiversity-benchmark [online]

barrier and the availability of hardstanding immediately adjacent on one side, the habitats that will be lost to facilitate the construction comprise approximately 80m of a hedgerow with trees.

10.7.2 Paragraph 5.1.4 of the **Appendix 12.6: Arboricultural Impact Assessment** concluded that the noise barrier component of the Proposed Development will result in the removal of ten arboricultural features to allow for construction. Removals would consist of eight low quality trees (T8, T9, T10, G11, T12, T13, T14, T15, T16, G17 and G19), due to their proximity to the noise barrier.

10.7.3 The principles for tree protection are set out in Annex D Outline Arboricultural Method Statement of the **Appendix 12.6: Arboricultural Impact Assessment of the Environmental Statement.**

10.7.4 Heathrow intends to replace the lost trees within its wider estate, potentially as part of habitat enhancement scheme undertaken to meet an objective to achieve a10% biodiversity net gain (see below).

10.8 Biodiversity Net Gain

10.8.1 The Proposed Development will result in the loss of the following habitats:

- sections of grassland associated with runway and taxiway margins to be replaced with hardstanding and pavement (comprising of 4ha of modified grassland);
- grassland, located north of the proposed noise barrier access (comprising 0.02ha of modified grassland);
- the gravelled access north of Wright Way that falls within the development area of the proposed noise barrier (comprising 0.01ha of artificial unvegetated; unsealed surface);
- the ruderal/ephemeral vegetation north of the proposed noise barrier access (comprising 0.01ha of ruderal/ephemeral); and
- the native hedgerow with trees that falls within the development area of the proposed noise barrier (comprising 0.08km of native hedgerow with trees).

10.8.2 New habitat will be created as part of the Proposed Development and will include the re-instatement of approximately 0.49ha of grassland being lost to create working compounds, the creation of an estimated 1.36ha of grassland due to the removal of pavement adjacent to the northern runway and a further 2.52ha adjacent to the southern runway. Overall, there would be a small net loss of habitat.

10.8.3 A provisional BNG calculation has been produced which is provided as **Appendix 12.4: Biodiversity Net Gain Assessment**. This has identified likely requirements for delivery of habitat creation or enhancement to offset any habitat loss which occurs as a result of the Proposed Development. The wider Heathrow Estate features a number of opportunities for habitat enhancement and potentially habitat creation such as diversification of grassland and scrub, re-instatement of hedgerows, watercourse management, and habitat creation of woodland, grassland or orchards. It is anticipated that the small habitat loss and the

objective for a10% net gain could be delivered within the wider Heathrow Estate as part of Heathrow's strategic approaches to habitat enhancement and creation.

10.8.4 Detailed information relating to the delivery of a 10% BNG, including an updated BNG statement and a Habitat Management and Monitoring Plan (HMMP) would be provided under the deemed condition imposed by paragraph 13 of Schedule 7A of the TCPA 1990 if permission is granted, and any offsite biodiversity gains would be delivered and maintained pursuant to a conservation covenant or planning obligation in accordance with the statutory BNG regime.

Habitats Regulation Assessment

10.8.5 **Appendix 12.1** provides a **'Report to Inform the Appropriate Assessment'** and provides LB Hillingdon with the information necessary to enable compliance with duties under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the "Habitats Regulations").

10.8.6 The HRA process comprises the Stage 1 **HRA Screening Report** submitted along with the Scoping Report (provided in **Appendix 12.2** of the Environmental Statement). The Likely Significant Effects ('LSE') on the eight European sites were identified as potential for local increases in the atmospheric concentration and deposition of nitrogen due to changes in frequency of flights over specific geographical areas. No other LSE were identified for any European sites other than for the South West London Waterbodies SPA and Ramsar site. For these European sites (sharing a common boundary) the disturbance of birds due to change in the pattern of aircraft movements resulting in a reduction in the fitness of individual birds has also been identified as a potential LSE.

10.8.7 The HRA process also comprises the Stage 2 Appropriate assessment. In relation to increases in atmospheric concentration and deposition of nitrogen, the **'Report to Inform the Appropriate Assessment'** (provided in **Appendix 12.1 of the Environmental Statement**) concluded that the only European site within an area where the air quality modelling predicts any change from current baseline is the South West London Waterbodies SPA and Ramsar site. At this European site, and in its surrounds the critical level[178] for NOx of 30µg/m^3 is not exceeded in any modelled scenario and therefore, no effect on the habitat supporting gadwall and shoveler of the South West London Waterbodies SPA and Ramsar site is predicted due to an increase in the concentration of NOx. No adverse effects on the integrity of any European site due to increases in the concentration or deposition of nitrogen due to the Proposed Development alone are concluded. No in-combination effects are predicted as these are intrinsically included within the assessment through the inclusion of predicted road traffic growth within the modelled scenarios.

10.8.8 In relation to the disturbance of birds using the South West London Waterbodies by the overflight of aircraft due both to the noise created and the visual presence of aircraft, the **'Report to Inform the Appropriate Assessment'** (provided in **Appendix 12.1 of the**

[178] Critical levels are concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, including habitats, may occur based on current knowledge.

Environmental Statement) based on literature review concluded that birds are typically tolerant of aircraft overflight when a plane is above 2,000ft (610m).

10.8.9 Behavioural responses to aircraft overflight and over potential disturbance agents ('PDA') have been monitored on a range of waterbodies both within and functionally linked to the South West London Waterbodies SPA and Ramsar site. The results of survey recording responses to potential disturbance agents concluded that of the disturbance events recorded the majority were not resulting in disturbance of the designated features (gadwall and shoveler), with tufted duck being most prone to disturbance. In general, most disturbance was caused by the public access to the area, in particular, the use of a footpath located between the Staines Reservoirs. It was also noted that the Proposed Development would not alter the number of flights from the Southern runway that take off over the South West London Waterbodies SPA and Ramsar site (most notably across the Wraysbury Reservoir). Each additional plane landing on the southern runway will be less disruptive than others that regularly take off over the South West London Waterbodies SPA and Ramsar site (see paragraph 5.2.7 of **Appendix 12.1: Report to Inform the Appropriate Assessment of the ES**). Therefore, it has been concluded that no adverse effects on the integrity of the South West London Waterbodies SPA and Ramsar site would arise due to disturbance caused by aircraft overflight. In addition, due to the limited public access to South West London Waterbodies SPA and Ramsar site, an in-combination effect of disturbance is not predicted.

Policy assessment and conclusions

10.8.10 In accord with national policy and policy G6 of the London Plan, the application uses the best available information to provide a full, transparent assessment of its effects on biodiversity. No significant harm is identified and there would be no loss of significant biodiversity features (and therefore no conflict with local policy DMEI 7).

10.8.11 It is apparent from the submitted **Design and Access Statement** and the **CEMP** that great care has been taken in the project design to limit adverse effects on biodiversity features and both the **CEMP** and the **Arboricultural Impact Assessment** (**ES Appendix 12.6**) commit the applicant to best practice in construction to limit any adverse effects.

10.8.12 However, policies also seek an enhancement of nature conservation where practical and London Plan policy G7 seeks the replacement of any trees lost to development, notwithstanding their quality. Habitat will be created as part of the development through the breaking up of concrete areas and their return to grassland to compensate for the loss of grassland caused by the works to taxiways and runway 09L.

10.8.13 A **Biodiversity Net Gain Assessment** (**ES Appendix 12.4**) provides the information required by the PPG and sets out proposals for the application to achieve a 10% net gain in biodiversity. It is anticipated that this objective can be met through habitat enhancements within Heathrow's wider estate, along with the replacement of lost trees and an updated BNG statement and a Habitat Management and Monitoring Plan (HMMP) will be submitted to provide the necessary details and commitments if planning consent is granted. These matters can be secured through planning conditions.

10.8.14 The Proposed Development complies with all relevant policies for nature conservation and enhancement.

10.9 Flood Risk Assessment

10.9.1 Matters related to flood risk are considered within the **Flood Risk Assessment** which accompanies this planning application.

10.9.2 In the previous planning application, the Inspector addressed the flooding risk management and the appropriate integration with the sustainable drainage through a condition.

10.9.3 **Table 20** summarises the principal planning policies in matter of flood risk assessment to be tested against the Proposed Development.

Table 20 - Principal planning and policy guidance tests

Document/reference	Policy tests
National Planning Policy Framework ('NPPF') (2023)[179]	**Paragraphs 165 to 174** state that vulnerable development types should be directed away from areas at highest risk of flooding (whether existing or future risk). Where development is necessary in flood risk areas, the development should be made safe for its lifetime without increasing risk elsewhere. **Paragraph 173** requires applications to be supported by a site-specific flood-risk assessment. "Development should only be permitted in areas at risk of flooding where it can be demonstrated that: *"a) Within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;* *b) The development is appropriately flood resistant and resilient;* *c) it incorporates sustainable drainage systems (…)* *d) Any residual risk can be safely managed; and* *e) Safe access and escape routes are included where appropriate, as part of an agreed emergency plan."* **Paragraph 175** states that *"major developments should incorporate Sustainable Drainage Systems ('SuDS') unless there is clear evidence that this is inappropriate. The systems used should:*

[179] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available from https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

Document/reference	Policy tests
	"a) Take account of advice from the Lead Local Flood Authority (LLFA); *b) Have appropriate proposed minimum operational standards;* *c) Have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and* *d) Where possible, provide multifunctional benefits."*
Planning Practice Guidance ('PPG) (2022)[180]	Paragraph 020 provides further guidance on how a site-specific flood risk assessment should be carried out and be able to "*demonstrate to the decision-maker how flood risk will be managed now and over the development's lifetime, taking climate change into account, and with regard to the vulnerability of its users."* Flood risk assessment: floods zones 1, 2, 3 and 3b Guidance sets out the sequential test requirement is needed for major development. *"Development is exempt from the sequential test if it is a:* • householder development • small non-domestic extensions with a footprint of less than 250 square metres • change of use (…). *Development is also exempt from the sequential test if it is a development on a site allocated in the development plan through the sequential test and:* • *the proposal is consistent with site's allocated use* • *there have been no significant changes to the known level of flood risk to the site, now or in the future, which would have affected the outcome of the test* *You may not need a sequential test if development can be laid out so that only elements such as public open*

[180] Ministry of Housing, Communities & Local Government, (2022). *Planning Practice Guidance* [online]. Available at https://www.gov.uk/guidance/flood-risk-and-coastal-change

Document/reference	Policy tests
	space, biodiversity and amenity areas are in areas at risk of any source of current or future flooding."
The London Plan (2021)[181]	**Policy SI 12 (Flood risk management)** **Part A** of the policy "*sets out that current and expected flood risk from all sources (…) across London should be managed in a sustainable and cost-effective way in collaboration with the Environment Agency the Lead Local Flood Authorities, developers and infrastructure providers."* **Part C** of the policy requires development proposals to "*ensure that flood risk is minimised and mitigated, and the residual risk is addressed. This should include, where possible, making space for water and aiming for development to be set back from the banks of watercourses."* **Policy SI 13 (Sustainable drainage) Part B** aims to *"ensure that surface water run-off is managed as close to its source as possible", in line with the drainage hierarchy."*
West London Strategic Flood Risk Assessment (2019)[182]	The SFRA sets out that Developers must submit completed Flood Risk Assessments for Major Proposals to demonstrate compliance with the requirements detailed in Sections 2 and 4 of the SFRA. Where development is proposed for sites within Flood Zones 3a (surface water), evidence must be submitted to demonstrate that, amongst other things, there will be no increase of flood risk to properties outside of the development boundary. The SFRA sets out that boroughs should consider implementation of further surface water flood risk mitigation requirements for proposed developments within Flood Zone 3a (surface water) where the development is also within the 1 in 30 Risk of Flooding from Surface Water mapped extents.

[181] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf
[182] West London SFRA (2019). *West London Strategic Flood Risk Assessment*. [online]. Available at https://westlondonsfra.london

Document/reference	Policy tests
Hillingdon Local Plan: Part 1 Strategic Policies (2012)[183]	**Policy EM1 (Climate change adaptation and mitigation) 10)** requires "*locating and designing development to minimise the probability and impacts of flooding.*" **Policy EM1 11)** requires "*major development proposals to consider the whole water cycle impact which includes flood risk management, foul and surface water drainage and water consumption.*" **Policy EM6 (Flood risk management)** requires new development to be directed away from Flood Zones 2 and 3 in accordance with the principles of the NPPF. Policy also requires that "*all development across the borough to use sustainable urban drainage systems (SUDS) unless demonstrated that it is not viable.*"
Hillingdon Local Plan: Part 2 Development Management Policies (2020)[184]	**Policy DMEI 8 (Waterside development) A) (ii)** states that development on sites that adjoin a watercourse "*should not extend within 8 metres of the top of the bank of a main river or 5 metres either side of an ordinary watercourse or an appropriate width as may be agreed by the Council.*" **Policy DMEI 9 (Management of flood risk) B)** states that development proposals in Flood Zones 2 and 3a "*will be required to submit an appropriate level Flood Risk Assessment ('FRA') to demonstrate that the development is resilient to all sources of flooding.*"

Assessment and policy compliance

10.9.4 A **Flood Risk Assessment** has been undertaken and is submitted with the planning application.

10.9.5 It has been confirmed by the LB Hillingdon's Scoping Opinion (February 2024) that the increase of hardstanding *"will be a negligible in the context of water runoff and flood risk."* The FRA which accompanies this application reviewed the EA's Flood Map for Planning which indicates two areas of Flood Zone 2 slightly encroaching on the noise barrier and airfield infrastructure. The EA were consulted regarding the classification of Flood Zone 2

[183] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf

[184] London Borough of Hillingdon (2020). Hillingdon Local Plan: Part 2 Development Management Policies. Available from https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570

in the airfield component area and have confirmed that Flood Zone 2 in this location is informed by the December 2002 /January 2003 historic flood extent. The FRA confirms that *"in the current situation there are no open watercourses flowing through the Site and these areas of Flood Zone 2 are therefore not considered to be an accurate representation of flood risk in this area."* [185]

10.9.6 The 2013 Application's proposed noise barrier alignment has been compared with the current proposed noise barrier within the **Flood Risk Assessment**. The Flood Risk Assessment concluded that *"…the updated noise barrier would not result in any further encroachment towards the Duke of Northumberland's River in comparison to the previously consented scheme, with offsets to the watercourse remaining unchanged. Access points would be retained/created through the noise barrier, in order to ensure access for maintenance post development".*

10.9.7 The noise barrier would be structurally independent from the Duke of Northumberland's River and would not impose any structural loading on the existing river banks. The Environment Agency (EA) has been consulted to confirm that the noise barrier component of the proposed development is considered acceptable.

10.9.8 Paragraph 5.1.3 of the **Flood Risk Assessment** confirmed that *"…the EA's fluvial modelling shows that both the 1 in 100 year plus climate change and 1 in 1000 year flood events would remain within the river bank and would not affect the Site."* It has been concluded that the noise barrier component of the Proposed Development *"…would therefore not impact or displace any flood water, and would not increase flood risk elsewhere."*

10.9.9 Other sources of flooding such as pluvial, surface water, sewer, groundwater and artificial sources in close proximity to the Site have been considered to be low, and therefore, the Proposed Development would not increase flood risk elsewhere.

10.9.10 In relation to the existing and proposed surface water drainage strategy, the **Flood Risk Assessment** concluded that *"…detailed modelling of the existing and proposed drainage runs would be undertaken to confirm capacity. Should reinforcement works to the pipe and manhole network be required these works would be undertaken as part of the Proposed Development*."[186]

10.9.11 In line with the previously consented scheme, to manage the effects of runoff from new hardstanding areas, any increase in new pavement would be offset by removing existing hardstanding from the same drainage catchment. The FRA also analysed the effects of runoff from new airfield pavement areas. It has been confirmed that *"…there would be a reduction in impermeable pavement area as part of the Proposed Development. The final area would be confirmed at the detailed design stage, and the proposals would ensure that there is no increase in impermeable area post development."*[187]

[185]Easterly Alternation Heathrow, Flood Risk Assessment produced by Logika Consultants Limited (July 2024), page 12.
[186]Easterly Alternation Heathrow, Flood Risk Assessment produced by Logika Consultants Limited (July 2024), page 23.
[187]Easterly Alternation Heathrow, Flood Risk Assessment produced by Logika Consultants Limited (July 2024), page 23.

10.9.12 There are no increases in aircraft movements as a result of the Proposed Development, and therefore contaminants linked to aircraft movements will not change (e.g. aircraft de-icing, venting etc.). The volume of surface water runoff would not increase post development, although there would be an increase of 2.14ha of operational taxiway where de-icing may be undertaken during winter periods. This increase in potential treatment area constitutes a very minimal increase in the overall catchment and it has been confirmed that the existing treatment facilities in place would be capable of controlling the potential for pollutants from this relatively small additional area. Flows would still be discharged in line with the existing permits, and would meet the same water quality requirements.

10.9.13 The Lead Local Flood Authority ('LFA') has confirmed that due to the extensive surface water drainage and treatment facilities already present on Site this approach is acceptable (see **Appendix 8**).[188]

10.9.14 A Sequential Test Assessment has been prepared in relation to the Proposed Development to demonstrate compliance with the relevant policies. The Assessment (included as **Appendix 8**) concludes that as the development proposals rely on the existing infrastructure present at the Site, no reasonably alternative sites would be appropriate or feasible for the development proposed. In addition, the Proposed Development Site is considered to be at a low risk of flooding from all sources. Therefore, in line with the PPG, it is considered that the Sequential Test would not apply in this instance and that there is no requirement to apply the Exception Test.

10.9.15 In summary, the Proposed Development has been assessed as being in accordance with relevant policies for flood risk.

11. PEOPLE AND COMMUNITIES (INCLUDING HEALTH) AND EQUALITIES

11.1 Introduction

11.1.1 The application documents include:

- a **People and Communities** assessment, provided as **Chapter 8 of the ES;**
- an **Equality Statement**, provided as **Appendix 8.1 of the ES**; and
- a **Public Health** assessment, provided as **Chapter 9 of the ES**.

11.1.2 Each has a different role and each rely heavily on the assessment of effects set out in the other Chapters of the ES. In this Section of the Planning Statement it is necessary to deal only briefly with the first two of these documents but to spend more time considering the outcome of the **Public Health** assessment.

11.2 Legislation, policies and guidance

11.2.1 Each document sets out a full schedule of law, policy and guidance relating to its subject area and it is not necessary to repeat those schedules here. There is, however, some planning policy which is relevant to all three and that is summarised briefly in the Table below.

Table 21 - Principal planning and policy guidance tests

Document / reference	Policy tests
National Planning Policy Framework 2023[189]	Paragraph 96 states that "*Planning policies and decisions should aim to achieve healthy, inclusive and safe places [..] which c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling*". Paragraph 97 states "*To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should: a) plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and*

[189] Ministry of Housing, Communities and Local Government, (2023). *National Planning Policy Framework* [online]. Available at https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

Document / reference	Policy tests
	places of worship) and other local services to enhance the sustainability of communities and residential environments; b) take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the community; c) guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs".
London Plan 2021[190]	The Spatial Development Strategy for Greater London sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth. Policies relevant to the population, health and land use assessment are: GG1: Building Strong and Inclusive Communities; GG3: Creating a Healthy City; D1: London's Form, Character and capacity for Growth; D14: Noise; SI1: Improving Air Quality; T2: Healthy Streets; and T4: Assessing and Mitigating Transport Impacts (which covers the walking and cycling network). "*To improve Londoners' health and reduce health inequalities, those involved in planning and development must: …ensure that the wider determinants of health are addressed in an integrated and co-ordinated way, taking a systematic approach to improving the mental and physical health of all Londoners and reducing health inequalities …*" [GG3 Creating a healthy city]. "*The Mayor supports the role of the airports serving London in enhancing the city's spatial growth… The environmental and health impacts of aviation must be fully acknowledged and aviation-related development proposals should include mitigation measures that fully meet their external and environmental costs, particularly in respect of noise, air quality and climate change. Any airport expansion scheme must be appropriately assessed …*" [Policy T8 Aviation].

[190] Greater London Authority (GLA), (2021). The London Plan: The Spatial Development Strategy for London [online]. Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

Document / reference	Policy tests
Hillingdon Local Plan Part 1 (2012)[191]	The Local Plan sets out Hillingdon's vision for the borough, which includes: "*Improved environment and infrastructure is supporting healthier living and helping the borough to mitigate and adapt to climate change: Areas lacking the social, physical and green infrastructure required to support healthy lifestyles have been identified and measures are well under way to address these*". The Hillingdon Local Plan: Part 1- Strategic Policies paragraph 3.6 states that the plan: *"Seeks to maximise the economic benefits of Heathrow, reduce any negative environmental impacts of the airport and secure improvements for local communities."* In addition, **Policy SO6** aims to: "*Promote social inclusion through equality of opportunity and equality of access to social, educational, health, employment, recreational, green space and cultural facilities for all in the borough, particularly for residents living in areas of identified need"* and policy SO10 aims to: "*Improve and protect air and water quality, reduce adverse impacts from noise including the safeguarding of quiet areas [..]."*

11.2.2 A substantial number of other policies are also relevant, but they relate to specific topics – for example in relation to noise, air quality or visual impact and they have already been set out and considered in earlier sections of this Statement.

11.3 People and Communities

11.3.1 The **People and Communities Chapter 8 of the ES** complements others by ensuring that the receptor focused nature of other topic chapters is not such that effects on communities or community facilities are overlooked.

11.3.2 The chapter captures detailed baseline information on the characteristics of affected communities and then considers the totality of environmental effects from the Proposed Development on:

- Business disruption.
- Residents' disruption.

[191] London Borough of Hillingdon (2012). Hillingdon Local Plan: Part 1 Strategic Policies. Available at https://modgov.hillingdon.gov.uk/documents/s14281/121108%20-%2007%20-%20local%20plan%20document.pdf

- Community facilities.

11.3.3 Effects are assessed in both the construction and operational phase on the Proposed Development and no significant adverse effects are found at a community level. The beneficial effects of easterly alternation are identified as well as the negligible or minor adverse effects, but no conclusions are reached which alter the outcome of the principal topic chapters.

11.4 Equality Statement

11.4.1 The **ES Appendix 8.1: Equality Statement** has been prepared to assist the determining authority LB Hillingdon in discharging its Public Sector Equality Duty (PSED) as part of its duties in determining the planning application for the Proposed development.

11.4.2 The Equality Act 2010 protects people against discrimination, harassment or victimisation in employment, and as users of private and public services. Section 149 sets out the PSED. This duty requires public authorities, in the exercise of their functions (including, for example, decision-making on planning applications), to have due regard to the need to:

- eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it; and
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

11.4.3 The main objective of the PSED is to ensure public policies and programmes are implemented fairly, in particular with regard to their impact on those with protected characteristics. Protected characteristics are defined in the Act to include matters such as race, gender, age and disability. This statutory obligation to consider equality rests with the public sector authority – and cannot be delegated. LB Hillingdon did request, however, that an Equalities Statement is provided with the application.

11.4.4 Consequently, the **ES Appendix 8.1: Equality Statement** is provided but does not set out to reach conclusions – that is a matter for the decision maker (LB Hillingdon). Its purpose is to identify and signpost to the decision maker the material necessary to discharge its duty, by reference to information set out in the planning application documentation, particularly including the ES.

11.5 Public Health Assessment

11.5.1 Following principles of public health, human health in Environmental Impact Assessment (EIA) takes a population health approach. Population health means "*the health outcomes of a group of individuals, including the distribution of such outcomes within the group*". The conclusions of the chapter therefore relate to the health outcomes to defined populations, not the health outcomes of individuals.

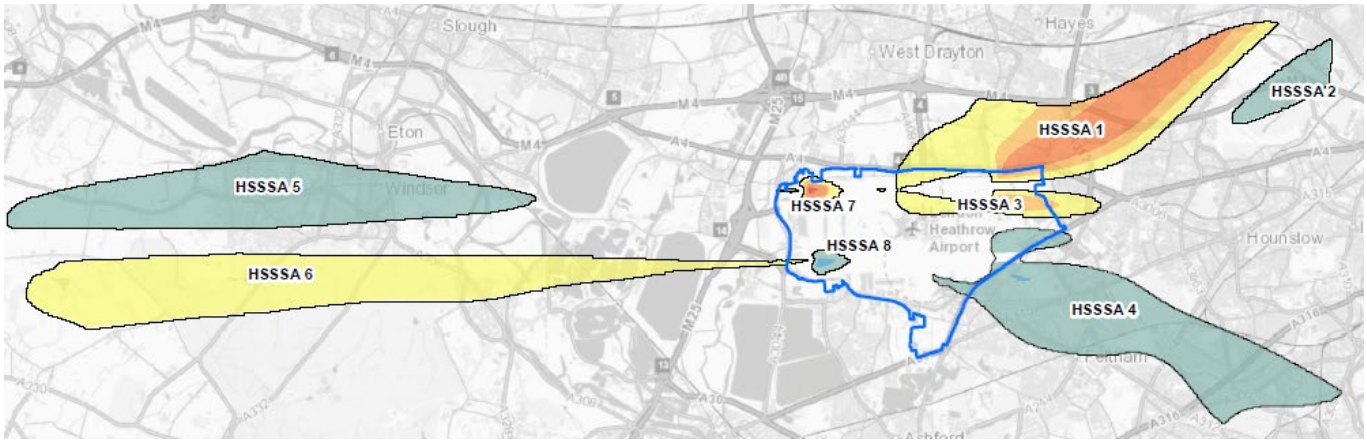
11.5.2 The assessment of health (**ES Chapter 9: Public Health**) considers any likely significant effects arising from the construction and operation of the Proposed Development on:

- populations of people, primarily relating to where they live ('residential receptors'); and
- populations using community and recreation facilities such as schools, hospitals, places of worship, and open space.

11.5.3 The assessment includes and is informed by extensive baseline information on the characteristics of areas potentially affected by the Proposed Development, with particular attention paid to the health characteristics of the population, sensitive receptors and vulnerable groups. The data includes borough wide information for the boroughs around Heathrow, recognising the size of the study area potentially affected by noise effects but it also breaks down the data into local areas in order to understand the significance of particular effects.

11.5.4 A characteristic of the assessment is the identification of Health Site-Specific Study Areas (HSSAs) which relate to communities most affected by landings or take-offs. These are shown in the figure below.

Figure 28 – HSSAs



11.5.5 For each HSSA detailed population and health characteristics are provided, including an assessment of which characteristics might be most vulnerable to particular effects.

11.5.6 Assessments are undertaken for both the construction and operational phase and, for each, the assessments consider in turn the public health effects on three receptor categories:

1. the resident population,
2. physical activity, open space and recreation, and
3. community facilities.

11.5.7 For construction, effects are assessed in relation to noise and vibration, as well as landscape and visual. For the operational phase, air quality effects on public health are also assessed. All assessments are made taking into account the mitigation offered with and embedded in the application.

11.5.8 Each assessment follows an evidence based and systematic approach working through the following steps:

- Approach;
- Effects pathways and health outcomes;
- Populations affected;
- Sensitivity of population;
- Health effect characteristics;
- Magnitude of health effects;
- Significance of population health effects.

11.5.9 The effects on each receptor category during construction are localised and assessed as negligible adverse. Account is taken of the temporary nature of the works and the extent of mitigation proposed. The assessment also observes:

"The context of the initial works to construct the new Longford Noise Barrier having a protective effect on the neighbouring community for subsequent construction activities on the airfield, as well as benefits during operation, is noted and may mediate community attitudes to the disturbance inherent in constructing that barrier."

11.5.10 The negligible effects assessment also applies to the effect on community facilities during construction (including Littlebrook Nursery, the Green Corridor Special Education School and the Heathrow Special Needs Centre) and the assessment found:

"The effect is characterised as being adverse in direction, direct, short- to medium-term. Although the scientific literature indicates a clear association between elevated and sustained exposures to noise, vibration, air quality and visual disturbance and reduced health outcomes, the occasional and temporary nature of the daytime works when community facilities were open would result in a very limited effect in the health baseline of the population. Although potentially affecting more vulnerable service users, the nature and timing of impacts means there are not expected to be implications for health inequalities. The level of effect is not expected to affect the ability to deliver local or national health policy."

11.5.11 Air quality public health effects are assessed for the population as a whole but also for the individual HSSAs. Again, the assessment is systematic and evidence based, taking account of the assessment outcomes in **Chapter 6: Air Quality of the ES**, which find small scale effects arising from the redistribution of air traffic on easterly alternation with different effects for NO2 and particulates but generally with more receptors benefiting to a small degree and a very limited number of receptors experiencing more significant effects in Longford. One point noted is the conclusion that the average exposure across the population of receptors as a whole would slightly reduce.

11.5.12 The assessment notes that some HSSAs would experience small and beneficial effects, whilst some would experience small and adverse effects, with all effects well below

objective limits. The overall public health effect is considered balanced. With low to negligible adverse and low to negligible beneficial magnitudes assigned:

"The score notes that Government health protection standards for air quality are met. It also takes into account scientific evidence on the non-threshold health effects of NO2, and PM2.5, and acknowledges the relative health effects of the very slight increases and decreases in the different pollutants. Any effect on health inequalities or delivery of local or national public health policy would be at most marginal. This is a public health acknowledgement of the very small incremental contribution to air pollution that the Proposed Development would make, but also recognition that at the Proposed Development level this should not be considered a significant effect on population health or health inequalities."

11.5.13 Operational air noise effects are comprehensively considered with the assessment noting *"the more even distribution of impacts around the Airport underpinned the Government's rationale for ending the Cranford Agreement in 2009."* A forensic assessment is then undertaken of the detailed air noise effects in the context of research based studies of the link between air noise and human health.[192]

11.5.14 The assessment takes account of the detailed outcome of the ES noise assessment of the redistribution of activity during easterly alternation. It is also influenced by other factors including:

- that the noise assessment shows the net effect of easterly alternation would be a reduction in the populations highly annoyed and the populations who would be sleep disturbed (paragraph 9.7.96);
- how the size of the population who experience high numbers of daytime aircraft events (N65) is both greatly reduced and is more evenly redistributed around the Airport with the Proposed Development (paragraph 9.7.98); and
- an exercise which monetises health outcomes taking account of positive and adverse effects shows a net benefit (paragraph 9.7.148).

11.5.15 Weight is attached to each of these findings and also to the principle of 'health equity', which is defined as *"the absence of unfair and avoidable or remediable differences in health among population groups defined socially, economically, demographically or geographically"* (paragraph 9.7.130). The inequity of the without development situation under easterly operations is said to be particularly evident from a comparison of overflying and respite between different 'pairs' of HSSAs – i.e. communities at diametrically opposing ends of the airport, where some receive constant overflying during easterly operations and some experience none (paragraph 9.7.135).

11.5.16 Detailed analysis is also undertaken of baseline and forecast noise levels with and without the Proposed Development, with the assessment noting the greater number that would benefit but that the smaller number who would be adversely affected being subject to more significant levels of change.

[192] Ground noise effects are also assessed but found to be less significant.

11.5.17 Ultimately a balance is drawn between all these factors (**ES Chapter 9: Public Health** paragraph 9.7.156):

"The overall position for public health, when triangulating evidence across a range of relevant noise metrics, is a combination of minor beneficial (not significant) and minor adverse (not significant) population health effects. Those people who experience the greatest adverse effects also receive the greatest mitigation support. With weight given to such mitigation, the effects of the Proposed Development are likely to be neutral for public health overall in EIA Human Health terms."

11.6 Policy compliance

11.6.1 The Public Health assessment confirms that there would be no significant adverse effects arising from the implementation of easterly alternation. Policy objectives in the NPPF, the London Plan and the Local Plan for healthy communities are not challenged by the application proposals. Indeed, the assessments show that many communities would be beneficially affected by the Proposed Development, whilst the smaller number of communities who would be adversely affected would not experience significant adverse public health effects and those adverse effects would be mitigated or (in the case of open space provision) compensated to secure overall enhancements.

11.6.2 National policy would be implemented to achieve a fairer distribution of noise and the national objective resonates with a number of London Plan and Local Plan policies which recognise the benefits for communities of achieving respite but also the importance of securing equitable outcomes. London Plan policy GG3 is clear, for example, that:

"To improve Londoners' health and reduce health inequalities, those involved in planning and development must: …ensure that the wider determinants of health are addressed in an integrated and co-ordinated way, taking a systematic approach to improving the mental and physical health of all Londoners and reducing health inequalities …"

11.6.3 The Local Plan objective to *"reduce any negative environmental impacts of the airport and secure improvements for local communities" would be met and objective SO6 to "promote social inclusion through equality of opportunity and equality of access"* would also be satisfied.

11.6.4 Implementing the ending of the Cranford Agreement would secure long term health equality, as observed in the final conclusion of the Public Health assessment (**ES Chapter 9: Public Health** paragraph 9.8.1):

"The Proposed Development is fundamentally about achieving a more equal distribution of aviation emissions (principally air noise) around the Airport, and this is evident from, for example, comparing Figures 7.5.23 WoD and Figure 7.5.23 WD (Volume IV). The changes facilitate short- to medium-term predictable respite benefits under easterly operations for communities that are currently disadvantaged by the Cranford Agreement. In the long-term, once there is normalisation of the experience of full runway alternation for all communities, predictable respite is likely to represent an improved position for health equity around the Airport."

12. SUMMARY AND CONCLUSIONS

12.1.1 Whilst the assessment set out in the ES and in this Planning Statement is extensive and comprehensive, the decision to be made on the application should be strongly guided by policy and the unusual presence in this case of project-specific precedent. The application implements and complies directly with policy and an almost identical application has been submitted before, examined and found to be acceptable by an independent Inspector and two Secretaries of State.

12.1.2 The question of policy compliance is unusual – in the sense that there is in place government policy which requires this particular development to come forward. The application not only complies with policy, it gives effect to policy.

12.1.3 It also follows from this background that the balance of benefits and adverse effects generated by easterly alternation is a consequence of that policy decision, rather than something which could justify a refusal of planning permission. It is relevant in this context that the Government's decisions to end the Cranford Agreement were informed not only by extensive consultation but also by a detailed technical analysis of the effects of that decision and by the views of stakeholders.

12.1.4 The analysis undertaken for this application shows the pattern of effects to be comparable in principle to that understood by the Government when the decision was made to end the Cranford Agreement. Ending the Agreement and introducing easterly alternation brings respite to communities who have been denied it by the Agreement for c.70 years. It also benefits significantly more people than it harms, although the scale of harm for those people will now be less than the government understood that it would be (because airport operations have become significantly quieter).

12.1.5 And those who are significantly adversely affected (and who live in contours at or above 54dB $L_{eq\ 16hr}$, which is defined as the onset of significant community annoyance) will have those effects mitigated through a scheme of noise insulation which both exceeds that which the Secretaries of State found to be acceptable in 2017 and exceeds that which is required by government policy.

12.1.6 These matters are extensively explored in Section 7 of this Planning Statement, which finds that the proposals implement government policy and offer a package of mitigation measures which meets and exceeds government policy. For the reasons set out there, the proposals also comply with policies of the London Plan and the Local Plan. Each element of that analysis is consistent with the conclusions reach by the Inspector and the Secretaries of State when these matters were previously considered, in 2017. In complying with national policy and with the terms of the Development Plan, there is a strong presumption in favour of the grant of planning permission.

12.1.7 Other topics are examined in the ES and in this Planning Statement, to ensure that the assessment of the application is comprehensive. No other topic area identifies additional significant adverse effects and the analysis undertaken in the Planning Statement demonstrates that the application complies with all other relevant planning policies.

12.1.8 The application has been carefully prepared through a process which sought to limit its environmental effects, and it is supported by a comprehensive package of mitigation measures, including a noise barrier, an exemplary Construction Environmental Management Plan and a full package of noise mitigation measures. All those measures are to be committed to through conditions or through a Section 106 obligation, the Heads of Terms for which are appended to this Planning Statement. Planning permission should, therefore, be granted.

A1 Appendix 1 - Planning History

A2 Appendix 2 - Plan showing the location of the noise barrier relative to the Green Belt

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A3 Appendix 3 - Easterly alternation: airfield infrastructure and the consideration of design alternatives within the application ref. 41573/APP/2013/1288

A4 *Appendix 4 - Decision Notice of the 2013 Application from 21 March 2014*

A5 Appendix 5 - Conditions under Appeal ref. APP/R5510/A/14/22257742

A6 Appendix 6 – Airport Safeguarding Statement

A7 Appendix 7 - The structure of Heads of Terms for a S106 agreement

A8 Appendix 8 - Sequential Test Assessment