Heathrow

EASTERLY ALTERNATION INFRASTRUCTURE PROJECT

Environmental Impact Assessment
Environmental Statement, Volume II
Chapter 10: Landscape and Visual Impact Assessment

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Heathrow

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10. Landscape and Visual Impact Assessment

10.1 Introduction

10.1.1 This Chapter reports the outcome of the Landscape and Visual Impact Assessment (LVIA) which assesses the potential for likely significant landscape and visual effects of the Proposed Development. It should be read in conjunction with **Chapter 3: Description of the Proposed Development**.

10.1.2 In their Scoping Opinion, the London Borough of Hillingdon (LBH) noted that the LVIA could be scoped out of the Environmental Impact Assessment (EIA); however, the LVIA has been included on a precautionary basis to address comments made by consultees Natural England and London Borough of Hounslow during the scoping process.

10.1.3 The LVIA in this Chapter has been produced by chartered landscape architects at WSP. The objective of this assessment has been to determine the landscape and visual effects of the Proposed Development on the existing landscape resource and visual amenity. The following landscape and visual receptors have been assessed:

- Landscape character, key characteristics, and elements;
- Designated landscapes; and
- Views and visual amenity experienced by residents, tourists, visitors, recreational and transport users.

10.1.4 This Chapter is supported by:

- **Appendix 10.1: LVIA Methodology**;
- **Appendix 10.2: Viewpoint Analysis**; and
- **Appendix 10.3: LVIA Figures** (**Figures 10.1 – 10.7**).

10.1.5 Other key relevant chapters include:

- **Chapter 2: Heathrow Airport and its Surrounds**;
- **Chapter 3: Description of the Proposed Development**;
- **Chapter 4: Legislation, Policy Context and Planning History**;
- **Chapter 7: Noise and Vibration**;
- **Chapter 11: Historic Environment**;
- **Chapter 13: Cumulative Effects**; and
- **Appendix 12.6: Arboricultural Impact Assessment**.

10.1.6 The only element of the Proposed Development that has been assessed in this chapter is the proposed noise barrier to the south of the village of Longford. All remaining components of the Proposed Development would have no significant effects on the existing landscape

resource and visual amenity. This was agreed during the scoping process, which is further outlined in **Section 10.5**.

10.2 Relevant legislation, policy and technical guidance

10.2.1 This section identifies the relevant legislation, policy and technical guidance that has informed the LVIA presented in this chapter.

10.2.2 The European Landscape Convention (ELC) is devoted exclusively to the protection, management and planning of all landscapes in Europe. Landscape is described as "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*"[1]. The definition applies to all urban and peri-urbans landscapes, towns, villages, rural areas, the coast and inland areas. In addition, it applies to ordinary or even degraded landscape as well as those areas that are of outstanding value or protected.

10.2.3 The ELC is binding in the United Kingdom (UK). As a signatory, the UK Government has therefore undertaken to adopt general policies and measures to protect, manage and plan landscapes as follows in Article 5 paragraphs a to d:

> "*a) To recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;*
>
> *b) To establish and implement landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures set out in Article 6*". [These include awareness-raising, training and education, identification and assessment of landscapes, definition of landscape quality objectives and the implementation of landscape policies]*;*
>
> *"c) To establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies mentioned in paragraph b above;*
>
> *d) To integrate landscape into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape*".

10.2.4 Landscape policy in the UK is already closely aligned with the ELC, and before UK ratification a Regulatory Impact Assessment had demonstrated that existing procedures and practice (through the work over many years of Government agencies, Local Government and Non-Governmental Organisations (NGOs), such as the National Trust) are compliant with the ELC's formal requirements. Given the UK's adoption of the ELC and its aims, the ELC gives an appropriate basis for the importance placed on the UK landscape.

[1] Council of Europe (2000) *European Landscape Convention, Article 1a*. [online] Available at: https://rm.coe.int/1680080621 [Accessed: 24 May 2024].

Policy

10.2.5 A summary of relevant policy is provided in **Table 10.1** .

Table 10.1 Relevant policy

Policy reference	Summary
International agreements	
European Landscape Convention [2]	The ELC was signed by the UK Government in February 2006, ratified in November 2006 and came into effect in March 2007. The ELC is a European Treaty which encourages the integration of landscape considerations into all relevant areas of policy.
National planning policy	
National Planning Policy Framework (2023)[3]	The National Planning Policy Framework (NPPF) advises that the planning system should protect and enhance the natural environments of international, national, regional, and local valued landscapes and green infrastructure. The NPPF notes that the planning system should take account of the different roles and character of different areas. Finally, it indicates local planning authorities should plan positively to retain and enhance landscapes and visual amenity within Green Belts. Paragraph 131 states: "*The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process*". Paragraph 135 states that developments should be "*visually attractive*" and "*sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change*". Paragraph 180 states that planning decisions "*should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes…[and] recognising the intrinsic character and beauty of the countryside…*".
Airports National Policy Statement: New runway capacity and	The Airports National Policy Statement (ANPS) forms part of the overall framework of national policy and may be a material consideration in making

[2] Council of Europe (2000) *The European Landscape Convention*. [online] Available at: https://www.coe.int/en/web/landscape/the-european-landscape-convention [Accessed: 04 September 2024].
[3] Ministry of Housing, Communities and Local Government (2023) *National Planning Policy Framework*. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf [Accessed: 04 September 2024].

Policy reference	Summary
infrastructure at airports in the southeast of England (updated June 2018)4	decisions on Town and Country Planning Act 19905 planning applications. Paragraphs 5.213 to 5.225 are relevant to the LVIA. Paragraph 5.223 states that "Outside nationally designated areas, there are local landscapes and townscapes that are highly valued locally and may be protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be given particular consideration. However, local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development". Paragraph 5.224 states that "In taking decisions, the Secretary of State will consider whether the preferred scheme has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation." Paragraph 5.225 states that "The Secretary of State will judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development".
Local Development Policies	
The London Plan (2021)[6]	Chapter 8 of The London Plan advises on the conservation and enhancement of landscapes and visual amenities, green infrastructure, Green Belts and Metropolitan Open Land. Policy G2: London's Green Belt states that development proposals should protect the Green Belt from inappropriate development and "*enhancement of the Green Belt to provide appropriate multi-functional beneficial uses for Londoners should be supported*" (p.314). In accordance with the London Plan an Urban Greening Factor Assessment is not required for infrastructure development.
London Borough of Hillingdon Local Plan (HLP) Part One Policy EM2[7]	Policy EM2 states that: "*Any proposals for development in Green Belt and Metropolitan Open Land will be assessed against national and London Plan policies, including the very special circumstances test*" (p.94). The Proposed Development is not located within the Green Belt and therefore does not require assessment against this.
HLP Part One Policy EM4[7]	Policy EM4 aims to "*safeguard, enhance and extend the network of open spaces, informal recreational and environmental opportunities*" (p.103). The policy also

[4] Department for Transport (2018) *Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England*. [online] 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 [Accessed: 04 September 2024].
[5] HM Government (1990) *The Town and Country Planning Act 1990 (as amended)*. [Online] Available at: https://www.legislation.gov.uk/ukpga/1990/8/contents [Accessed: 16 August 2024].
[6] Greater London Authority (2021) *The London Plan*. [online] Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf [Accessed: 04 September 2024].
[7] London Borough of Hillingdon (2024) *Local Plan*. [online] Available at: https://www.hillingdon.gov.uk/local-plan-and-review [Accessed: 04 September 2024].

Policy reference	Summary
	seeks to protect existing tree and landscape features and enhance open spaces with new areas of vegetation cover. The Council will work with other local authorities and agencies to pursue the key aims of the Colne Valley Park.
HLP Part Two Policy DMHB 4[8]	Policy DMHB 4 states that development proposals must "*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*" (p.41).
HLP Part Two Policy DMHB 8[8]	Policy DMHB 8 states that "*applications which impact detrimentally on the significance of a registered park or garden will normally be refused*" (p.45).
HLP Part Two Policy DMHB 14	A Landscape Strategy has been produced in line with local plan policy DMHB14 and is presented in the **Design and Access Statement** as part of this planning application.

Technical guidance

10.2.6 A summary of relevant technical guidance is provided in **Table 10.2**.

Table 10.2 Relevant guidance

Document / Reference	Summary
Guidelines for Landscape and Visual Impact Assessment (GLVIA3), 3rd Edition[9]	GLVIA3 sets out the industry guidance on the assessment of landscape and visual effects.
Visual Representation of Development Proposals[10]	This document provides guidance on the production and presentation of development proposals including photography and photomontages.
An Approach to Landscape Sensitivity Assessment[11]	This document sets out principles to inform a landscape sensitivity assessment.
Institute of Environmental Management and Assessment (IEMA) EIA Quality Mark Article – Predicting the growth of tree and	This article provides guidance on the mitigatory effectiveness of vegetative screening.

[8] London Borough of Hillingdon (2020) *Hillingdon Local Plan Part 2: Development Management Policies*. [online] 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 [Accessed: 04 September 2024].
[9] Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment, Third Edition*.
[10] Landscape Institute (2019) *Visual Representation of Development Proposals.* [online] Available at: https://www.landscapeinstitute.org/wp-content/uploads/2019/09/LI_TGN-06-19_Visual_Representation-1.pdf [Accessed: 04 September 2024].
[11] Natural England (2019) *An approach to landscape sensitivity assessment – to inform spatial planning and land management.* [online] Available at: https://assets.publishing.service.gov.uk/media/5d2f005aed915d2fe684675b/landscape-sensitivity-assessment-2019.pdf [Accessed: 04 September 2024].

Document / Reference	Summary
hedge planting when determining the effectiveness of mitigation[12]	
An Approach to Landscape Character Assessment[13]	This document sets out standards for the production of landscape character assessments in England.
Environmental Impact Assessment Guidance to Shaping Quality Development[14]	This document provides guidance on principles and frameworks for the EIA process to ensure project design aligns with environmental thinking.
Delivering Proportionate EIA: A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice[15]	This document outlines best practices for delivering EIA work that is proportionate to the Proposed Development.
National Design Guide[16]	This document outlines the Government's overarching priorities and a common framework for well-designed, high-quality places.
National Model Design Code: Parts 1 and 2[17]	These documents expand upon the National Design Guide with tools, processes and outputs for achieving well-designed, high-quality places.

[12] Institute of Environmental Management and Assessment (2019) *EIA Quality Mark Article – Predicting the growth of tree and hedge planting when determining the effectiveness of mitigation.*

[13] Natural England (2014) *An Approach to Landscape Character Assessment.* [online] Available at: https://assets.publishing.service.gov.uk/media/5aabd31340f0b64ab4b7576e/landscape-character-assessment.pdf [Accessed: 04 September 2024].

[14] Institute of Environmental Management and Assessment (2015) *Environmental Impact Assessment Guidance to Shaping Quality Development.* [Online] Available at: https://www.bing.com/ck/a?!&&p=9fd810d1019466bfJmltdHM9MTcyNTQwODAwMCZpZ3VpZD0xMTE3MjE4MC1iMDcwLTY2Y2EtMmU3Zi0zNTVjYjEwYzY3ZTQmaW5zaWQ9NTIwOQ&ptn=3&ver=2&hsh=3&fclid=11172180-b070-66ca-2e7f-355cb10c67e4&psq=Environmental+Impact+Assessment+Guidance+to+Shaping+Quality+Development.&u=a1aHR0cHM6Ly93d3cuaWVtYS5uZXQvZG93bmxvYWQtZG9jdW1lbnQvNzAxOA&ntb=1 [Accessed 04 September 2024].

[15] Institute of Environmental Management and Assessment (2017) *Delivering Proportionate EIA. A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice.* [online] Available at: https://www.iema.net/download-document/33945 [Accessed: 04 September 2024].

[16] Ministry of Housing, Communities and Local Government (2021) *National Design Guide.* [online] Available at: *https://assets.publishing.service.gov.uk/media/602cef1d8fa8f5038595091b/National_design_guide.pdf* [Accessed: 04 September 2024].

[17] Ministry of Housing, Communities and Local Government (2021) *National Model Design Code: Parts 1 and 2.* [online] Available at: *https://assets.publishing.service.gov.uk/media/611105d1e90e0706c5282b66/NMDC_Part_1_The_Coding_Process_web.pdf* and https://assets.publishing.service.gov.uk/media/6111531fd3bf7f043c4badd1/NMDC_Part_2_Guidance_Notes.pdf [Accessed: 04 September 2024].

10.3 Baseline conditions

Method of baseline data collection

10.3.1 The LVIA has been informed by desk-based studies and field surveys undertaken in March and June 2023 and May 2024.

10.3.2 A preliminary desk-based assessment was undertaken of landscape and visual receptors using a range of map-based data and related computer and digital analysis including Zone of Theoretical Visibility (ZTV), digital and/or surface terrain modelling and wireframe and street view software. This information was used to inform initial assessments and focus the Site and field survey work and likely locations for viewpoint photography.

10.3.3 The ZTV and viewpoint analysis is used to further define the scope of the assessment process. The ZTV (**Figure 10.1** of **Appendix 10.3: LVIA Figures**) has been calculated using ArcGIS software to generate the ZTV of the noise barrier component of the Proposed Development. This software creates a 3D computer model of the existing landscape and the development using 2m Light Detection and Ranging (LIDAR) data with gaps filled with 1m LIDAR and 50cm Blueskye Digital Surface Model (DSM) within 2km.

10.3.4 For the purpose of assessing the worst-case scenario, the ZTV has been calculated at a maximum height of 7m for the noise barrier component of the Proposed Development.

10.3.5 The ZTV also includes an adjustment that allows for the Curvature and Light Refraction of the Earth. The ZTV takes account of most built development and vegetation. However, individual trees and hedgerows and some roadside vegetation are not included which collectively provide successive layers of vegetation screening. As a result, there may be roads, tracks and footpaths in the wider setting which, although shown as falling within the ZTV, have restricted viewing opportunities since they are heavily screened or filtered by banks, walls and vegetation. The ZTV therefore provides a starting point in the assessment process and accordingly tend to over-estimate the potential visibility of the noise barrier.

Desk study

10.3.6 A range of desk-based and site-based data have been sourced to undertake the LVIA, covering landscape and visual receptors. The desk-based data has been drawn from Ordnance Survey and a range of document sources in addition to the relevant planning policy documents outlined in **Chapter 4: Legislation, Policy Context and Planning History**. The data sources that have been collected and used to inform this chapter are:

10.3.7 Local development plans include:

- *London Borough of Hillingdon Local Plan Part One*[7] *and Two*[8];
- *Hounslow Local Plan 2015 to 2030*[18]; and
- *The London Plan*[6].

[18] London Borough of Hounslow (2015) *Hounslow Local Plan (2015)*. [online] Available at: https://www.hounslow.gov.uk/info/20167/local_plan/1108/local_plan [Accessed: 04 September 2024].

10.3.8 Landscape character information from Natural England provided descriptions and analysis of the key features and opportunities of the local landscape, including:

- *National Character Area (NCA) 115: Thames Valley*[19];
- *London's Natural Signatures: The London Landscape Framework*[20]; and
- *Colne Valley Landscape Character Assessment*[21].

10.3.9 Visual Receptor information is extracted from the following sources:

- Long Distance Walkers Association - Overview map for Long Distance Paths and Walks;
- English Heritage;
- Historic England;
- National Trust;
- Sustrans;
- Visit England;
- Woodland Trust; and
- WSP – Internal dataset of Public Rights of Way (PRoWs).

Site Surveys

10.3.10 Field studies conducted in March and June of 2023 and May 2024 have included documented visits to all relevant landscape and visual receptors to assess the likely effects of the Proposed Development in the field, checking data, 'ground truthing' and examining landscape elements, characteristics/character, and views/visual amenity.

10.3.11 Site and field survey activities included:

- Site survey verification of landscape elements within 2km where effects are likely;
- Field survey verification of the ZTV from landscape and visual receptor locations within 2km;
- Micro-siting of viewpoint locations and recording of panoramic baseline photography and subsequent visual assessment from the assessment viewpoints; and

[19] Natural England (2012) *NCA Profile:115 Thames Valley (NE379)*. [online] Available at: https://publications.naturalengland.org.uk/publication/3865943 [Accessed: 04 September 2024].
[20] Natural England (2011) *London's Natural Signatures: The London Landscape Framework*. [online] Available at: https://publications.naturalengland.org.uk/publication/6540238365130752 [Accessed: 04 September 2024].
[21] Colne Valley Landscape Partnership and Alison Farmer Associates (2018) *Colne Valley Landscape Character Assessment*. [online] Available at: https://www.colnevalleypark.org.uk/wp-content/uploads/2019/03/LCAFinalReport-updated-April-2018_1.pdf [Accessed: 04 September 2024].

- Field survey assessment and verification of likely landscape, visual and cumulative effects.

10.3.12 All site survey work was undertaken in fair weather conditions with good to excellent visibility.

Study Area

10.3.13 The Study Area for the LVIA is illustrated in **Figure 10.1** (see **Appendix 10.3: LVIA Figures**) and extends to a radius of 2km surrounding the noise barrier component of the Proposed Development.

10.3.14 IEMA Guidance[14,15] recommends a proportionate assessment focused on the likely significant effects of the Proposed Development, and a proportionate aspect chapter. The LVIA Study Area must therefore be large enough to capture all likely significant effects. However, an overly large LVIA Study Area may be considered disproportionate if it makes understanding the key effects of the Proposed Development more difficult by including extraneous baseline information, and receptors which are unlikely to be significantly affected by the Proposed Development.

10.3.15 This is supported by the Landscape Institute within the GLVIA3[9] (paragraph 3.16) which recommends that "*the level of detail provided should be that which is reasonably required to assess the likely significant effects*". Paragraph 5.2 also states that "*the study area should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner*".

10.3.16 The assessment has also been guided by detailed viewpoint analysis (**Appendix 10.2: Viewpoint Analysis**).

10.3.17 The LVIA therefore defines a Study Area, based on professional judgement, beyond which it is considered unlikely for significant effects to arise.

Viewpoint selection and visualisations

10.3.18 Six viewpoints were selected for this assessment to cover a range of receptors and confirm the proportionality of the Study Area. These viewpoints are the same viewpoints as those assessed in the 2013 planning application (41573/APP/2013/1288[22]) which were agreed with the LBH to illustrate the potential visibility of the noise barrier, as follows:

- Viewpoint 1 (**Figure 10.2** of **Appendix 10.3: LVIA Figures**): From the bridge over the Duke of Northumberland's River;
- Viewpoint 2 (**Figure 10.3** of **Appendix 10.3: LVIA Figures**): From the eastern section of Longford 'pocket park';
- Viewpoint 3 (**Figure 10.4** of **Appendix 10.3: LVIA Figures**): From the western section of Longford 'pocket park';

[22] London Borough of Hillingdon (2013) *Planning Application Details - 41573/APP/2013/1288*. [online] Available at : https://planning.hillingdon.gov.uk/OcellaWeb/planningDetails?reference=41573/APP/2013/1288&from=planningSearch [Accessed: 05 September 2024].

- Viewpoint 4 (**Figure 10.5** of **Appendix 10.3: LVIA Figures**): From the car park within the Padbury Oaks office complex;
- Viewpoint 5 (**Figure 10.6** of **Appendix 10.3: LVIA Figures**): From Weekly House Listed Building within the Padbury Oaks office complex; and
- Viewpoint 6 (**Figure 10.7** of **Appendix 10.3 LVIA Figures**): From King's Bridge on Bath Road.

10.3.19 Visualisations have been prepared to illustrate winter and summer views for each viewpoint in accordance with Landscape Institute technical guidance[23].

10.3.20 **Appendix 10.2: Viewpoint Analysis** provides a complete viewpoint analysis of all six viewpoints which have been assessed as part of the LVIA.

Current landscape baseline

Landscape Character

10.3.21 The baseline landscape conditions within the Study Area vary from areas around the Airport which are characterised largely by hardstanding, areas of vegetated parks and residential properties along numerous waterways.

10.3.22 With the exception of the noise barrier south of Longford, the remaining components of the Proposed Development would be contained within the boundary of the Airport. The baseline conditions within this boundary are characterised largely by hardstanding (runways, aprons, taxiways, and buildings or infrastructure associated with Airport activities such as car parks, terminals and aircraft hangars). Additionally, the landscape within the Airport is characterised by significant movement of aircraft, ground handling equipment and operatives, and various vehicular traffic. Apart from the hardstanding, areas of airfield grassland, this being grassland specifically managed to be of low species diversity and with a uniform sward height of 15 to 25 cm, occur between the runways and taxiways. These areas of grassland contribute little to the overall landscape character and are not considered to be sensitive receptors in landscape terms. The noise barrier is to be located near to the settlement of Longford which includes Longford 'pocket park' alongside the Duke of Northumberland's River and the Heathrow Terminal 5 Business Car Park.

National Landscape Character

10.3.23 The NCAs Map[24] divides England into 159 NCAs, each of which is distinctive and has a unique 'sense of place'. The geographical extent of a NCA and their accompanying descriptions form the broad national baseline for Landscape Character Assessment in England, informing further detailed assessment at a Regional, County and Local level.

[23] Landscape Institute (2019) *Visual Representation of Development Proposals.* [online] Available at: https://www.landscapeinstitute.org/wp-content/uploads/2019/09/LI_TGN-06-19_Visual_Representation-1.pdf [Accessed: 24 May 2024).
[24] Natural England (2023) *National Character Area Map.* [online] Available at: https://experience.arcgis.com/experience/805c6ba91684461092def63445b1bf5c/page/Page/?views=View-2%2CView-3 [Accessed: 05 September 2024].

10.3.24 The entire 2km Study Area is located within the NCA 115: Thames Valley[19]. Broadly, this NCA is characterised by numerous streams, tributaries, lakes, and other waterbodies. Despite the predominantly urban character of the area, there are pockets of semi-natural open spaces and tranquil patches, particularly in lowland heath and riparian zones around waterways.

10.3.25 The key characteristics of NCA 115 are listed in this section with the most relevant underlined:

- "Flat and low-lying land, rising to low, river-terraced hills, which include the prominent local outcrop of chalk on which Windsor Castle sits.
- The underlying geology is dominated by the London Clay which, over much of the area, is overlain by river-lain sands and gravels.
- The numerous hydrological features provide unity to an area which otherwise lacks homogeny; these features include the River Thames and its tributaries, streams, lakes, canals and open waterbodies (the result of restored gravel workings).
- Woodlands characterise the north-western area, with the wooded character extending up to the southern edge of the Chiltern Hills.
- Farming is limited. Where it survives, grazed pasture is the major land use within a generally open, flat and featureless landscape. The field pattern is medium-scale and irregular, with smaller fields to the west. Localised areas of species-rich hay meadows provide a splash of colour in summer.
- Although densely populated and developed, pockets of woodland, open grassland, parkland, wetlands and intimate meadows provide escape and tranquillity, and include a variety of habitats supporting important populations of many species, notably stag beetle, shoveler, gadwall and other invertebrates and wildfowl.
- Towards London in the east, the natural character of the area is overtaken by urban influences: a dense network of roads (including the M25 corridor), Heathrow Airport, railway lines, golf courses, pylon lines, reservoirs, extensive mineral extraction and numerous flooded gravel pits.
- There are small but biologically important areas of lowland heathland – especially on higher sandy ground in the north – and a small area to the south falls within the Thames Basin Heaths Special Protection Area (SPA) buffer zone.
- To the south, the open Thames flood plain dominates, with its associated flat grazing land, becoming characterised by a number of formal historic landscapes on higher ground. Between Hampton and Kew, the River Thames forms the focus of a series of designed landscapes.
- The area has an urban character, and there are very few villages of more traditional character, although almost half of the area is greenbelt land and development has been restricted in areas like Crown Estate land and Eton College grounds.
- The river is closely associated with numerous historic places and cultural events, such as the signing of Magna Carta at Runnymede. Tourists from all over the world are

drawn to the rich heritage of the area, flocking to attractions like Hampton Court Palace and Windsor Castle.

- The area is important for recreation, both for residents and visitors. Historic parkland and commons provide access to green space, the Thames Path National Trail runs the length of the NCA, and a variety of activities are enjoyed on the river and other waterbodies[25]".

Local Landscape Character

10.3.26 The LBH and London Borough of Hounslow have no detailed Landscape Character Assessments. However, Natural England has produced London's Natural Signatures: The London Landscape Framework[20] which characterises the Natural Landscape Areas (NLAs) adjacent to Heathrow as the following:

- NLA1 – Colne River Valley: The "host" landscape of the western section of the noise barrier elements, including most of Longford Village:
    - This NLA is characterised by dense residential and industrial development interrupted by the River Colne, along with marginal wetlands and occasional woodlands.
- NLA10 – Hayes Gravels: North of Heathrow, including a small section of the northern runway:
    - The western portion of this NLA (split by the Brent River Valley) is characterised by limited areas of remaining 'natural' landscape. Smaller, semi-natural spaces include enclosed meadows with hedgerows and copses, as well as riparian zones denoted by trees and some planted woodlands. This NLA is excluded from the assessment as the proposed noise barrier is not within the NLA, therefore there are no direct effects; additionally, there is limited overlap with the ZTV and indirect effects on the NLA are unlikely.
- NLA12 – Hounslow Gravels: The "host" landscape of the eastern section of the noise barrier elements, including the east of Longford village:
    - The Hounslow Gravels NLA is characterised by substantial suburban development with occasional areas of semi-natural space, as well as wetlands that comprise ecologically significant corridors. This largely flat area is host to heath- and grassland, with some scrub and mid-height wooded areas.

10.3.27 The west of the Study Area also overlaps with the *Colne Valley: Harmondsworth to Stanwell Moor* Landscape Character Area (LCA). This landscape is characterised by the juxtaposition of the motorways and industrial/ commercial development with the low-lying floodplain surrounding the River Colne.

[25] Natural England (2015) *National Character Area Profile: 115. Thames Valley*. [online] Available at: https://publications.naturalengland.org.uk/file/6085686941712384 [Accessed: 05 September 2024].

Landscape Character of Longford

10.3.28 Longford is the closest settlement to the northern boundary of the Airport. It is on the southern edge of this settlement that the noise barrier would be built. Longford was originally a village, and although it is now surrounded by other development, the core of the settlement retains its village character including a number of residential buildings dating from the medieval and post-medieval period.

10.3.29 Longford is a linear settlement centred on part of Bath Road. Many of the oldest buildings are located on this road. Newer residential development fills the gaps in-between and also extends northwards to an area known as 'The Island'. Although the historic core of Longford has "*retained its largely unspoilt village character*"[26], Heathrow is a prominent part of the village character, particularly when aircraft are taking off from, or landing on, the northern runway. When aircraft are taking off from the northern runway to the west, they are frequently visible from Longford. Views of the low-flying aircraft are a distracting and busy characteristic of the village.

10.3.30 The footprint of the noise barrier itself within Longford would be very small and does not in itself have a specific landscape character. The landscape character of the settlement of Longford is therefore excluded from the assessment. All of the character areas are located in busy, largely urban landscapes and so the tranquillity levels are not high or noteworthy at the scale of the overall character area.

10.3.31 Effects on the setting of the Longford Village Conservation Area are assessed in **Chapter 11: Historic Environment**.

Landscape Designations

10.3.32 There are no designated landscapes within the Study Area including National Parks, National Landscapes (former Areas of Outstanding Natural Beauty) or Registered Parks and Gardens. The boundaries of the Chilterns National Landscape may be expanded, however the boundary changes proposed to date to Natural England[27] would remain outside the Study Area and would not be overlapped by the ZTV.

10.3.33 The Colne Valley Regional Park is not a landscape designation; however, it is included in the LVIA as a visual receptor.

Current visual baseline

10.3.34 Information on visual receptors included in this assessment has been collected from local development plans, Ordnance Survey maps, relevant tourist literature as well as two site visits in 2023 and one in 2024. This baseline information is set out as an inventory of the visual receptors focusing on those most likely to be affected.

10.3.35 The baseline inventory includes the following visual receptors:

[26] Longford Village Conservation Area Appraisal, London Borough of Hillingdon (March 2007), page 7.
[27] Chilterns National Landscape (2023) *Chilterns AONB Boundary Review.* [Online] Available at: https://www.chilterns.org.uk/what-we-do/future-proofing-the-chilterns/chilterns-aonb-boundary-review/ [Accessed 05 September 2024].

- Views from settlements and residential properties;
- Views experienced whilst travelling through the landscape (road users, rail users, pedestrians, walkers, horse riders and cyclists for example); and
- Views from tourist and recreational destinations such as the nearby Harmondsworth Moor.

10.3.36 Within the LVIA Study Area, the following principal visual receptors include:

- The settlements of Longford, Harmondsworth and Sipson which are to the north of Heathrow. Due to the limited theoretical visibility from Harmondsworth and Sipson, these settlements have been excluded from the assessment.
- Transport routes including the M25 and M4, as well as busy A-roads and Bath Road within Longford. Due to the limited theoretical visibility of most transport routes within the Study Area, only Bath Road has been included in the assessment. Additionally, the Personal Rapid Transport System (PRTS) connecting Terminal 5 Business Car Park to the terminal runs alongside and transects the noise barrier. The PRTS has been excluded from the assessment on the basis that the noise barrier elements of the Proposed Development would appear fitting in the context of the existing landscape and therefore effects on these receptors have been scoped out of this assessment.
- Recreational routes, including PRoW, National Trails, Sustrans Cycle Routes, and the Colne Valley Way. Due to limited or no theoretical visibility, only PRoW Y23 and the permissive bridleway south of Bath Road are included in this assessment.
- Visitor and tourist destinations, including Longford 'pocket park', also known as Peggy Bedford Biodiversity Site, and Colne Valley Regional Park including Harmondsworth Moor.

Future baseline

10.3.37 Landscape change is an ongoing process and would continue across the LVIA Study Area irrespective of whether the Proposed Development would proceed. Change can arise through natural processes or as a result of human activity, including land use and land management.

10.3.38 Land management, and consequently landscape character, is dependent on a number of economic and environmental aspects, including the future effects of climate change and human adaptation, which are difficult to predict at a local level and not a matter for this assessment.

10.3.39 It is important to consider that in the context of a commercial Airport such as Heathrow, the landscape will continue to be heavily managed so as to facilitate its efficient operation. Therefore, any significant character changes are unlikely and so the assessment will not consider any alternative future scenarios.

10.3.40 The published profile report for all NCAs within the LVIA Study Area report on a number of drivers of change, particularly on climate change, which may also alter the existing landscape and visual baseline within the surrounding area. However, long-term changes as a result of climate change are unpredictable, and the LVIA is undertaken against the current

baseline, which has assumed that existing vegetation (trees, woodland and hedgerows) will continue to be managed in their current condition throughout the assessment period.

10.4 Assessment methodology

10.4.1 The project-wide generic approach to assessment is set out in **Chapter 5: Approach to the EIA**.

10.4.2 The LVIA assesses the likely effects of the Proposed Development on the landscape and visual resource, encompassing effects on landscape elements, characteristics and landscape character, designated landscapes, visual effects and cumulative effects.

10.4.3 Essentially, the landscape and visual effects (and whether they are significant) are determined by an assessment of the nature or 'sensitivity' of each receptor or group of receptors and the nature of the effect or 'magnitude of change' that would result from the noise barrier of the Proposed Development. The evaluation of sensitivity takes account of the value and susceptibility of the receptor to the noise barrier component of the Proposed Development. This is combined with an assessment of the magnitude of change which takes account of factors such as the size and scale of the proposed change and the geographical extent. Other factors regarding the nature of the effect, such as the duration of change and whether the effect is cumulative are also noted. By combining assessments of sensitivity and magnitude of change, a level of landscape or visual effect as well as the nature of that effect can be evaluated and the significance of the effect determined.

10.4.4 The resulting level of effect is described in terms of whether it is significant or not significant and the type or nature of effect is described as either direct or indirect; temporary or permanent (reversible); cumulative; and positive, neutral or negative. The assessment has also considered the cumulative effects resulting from the Proposed Development in combination with committed developments.

10.4.5 A full description of the LVIA methodology is set out in **Appendix 10.1: LVIA Methodology** which includes a glossary of terms.

Determining the significance of effects

10.4.6 A matrix presented in **Table 10.3** is used as a guide to illustrate the assessment of significance on landscape and visual assets. In line with the emphasis in GLVIA3[9] placed upon the application of professional judgement, an overly mechanistic reliance upon a matrix is avoided through the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor. Such narrative assessments provide a level of detail over and above the outline assessment provided by use of the matrix alone. Wherever possible cross references are made to baseline figures and/or visualisations to support the rationale. The matrix as presented in **Table 10.3** should therefore be considered as a guide and any deviation from this guide will be clearly explained in the assessment rationale in **Section 10.6** and **Section 10.7**.

10.4.7 Significant landscape and visual effects are highlighted in **bold** and shaded dark purple in **Table 10.3**. They relate to all those effects that result in a '**Major**' or a '**Major/Moderate**' level of effect. In some circumstances, '**Moderate**' levels of effect (shaded light purple) also

have the potential, subject to the assessor's opinion, to be considered as significant and these exceptions are also highlighted in bold in the text and will be explained as part of the assessment, where they occur. White or un-shaded boxes in **Table 10.3** indicate a not-significant effect.

10.4.8 In those instances where there would be no effect, the magnitude has been recorded as 'Zero' and the level of effect as 'None' for landscape receptors or 'No View' visual receptors. Intermediate levels of magnitude and levels of effect are also used in the LVIA and are shown in **Table 10.3** in italics, for example Medium-high magnitude or Major/Moderate level of effect.

Table 10.3 Significance matrix

Sensitivity	**Magnitude of change**					
	High	***Medium-high***	**Medium**	***Medium-low***	**Low**	**Negligible-Zero**
High	**Major (Significant)**	**Major (Significant)**	***Major / Moderate (Significant)***	**Moderate ***	**Moderate ***	Minor
Medium-high	**Major (Significant)**	***Major / Moderate (Significant)***	**Moderate***	**Moderate ***	*Moderate / Minor*	Minor
Medium	***Major / Moderate (Significant)***	**Moderate***	**Moderate***	*Moderate / Minor*	Minor	*Minor / Negligible*
Medium-low	**Moderate***	**Moderate***	*Moderate / Minor*	Minor	*Minor / Negligible*	Negligible
Low	*Moderate / Minor*	*Moderate / Minor*	Minor	*Minor / Negligible*	Negligible	Negligible

*Note: Moderate levels of effect may / may not be significant subject to the assessor's professional opinion which shall be clearly explained.

10.4.9 The type or nature of effect is also described and may be direct or indirect; short, medium or long-term; cumulative; and beneficial, neutral or adverse.

Limitations and assumptions

10.4.10 This chapter forms an assessment based on available information at the time of preparation and represents a reasonable worst case and precautionary approach by assessing the noise barrier at 7m height. The assessment considers the likely effects as a result of the construction and operation of the noise barrier component of the Proposed Development.

10.4.11 There are no known data limitations relating to the LVIA that affect its robustness.

10.5 Scope of the assessment

Introduction

10.5.1 The Scoping Report (**Appendix 1.5: Scoping Report**), requesting a Scoping Opinion from the LBH was submitted on 01 November 2023 and a Scoping Opinion (**Appendix 1.6: Scoping Opinion**) was received from the LBH on 01 February 2024 (dated 31 January 2024). Information received in the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) has informed the scope of the landscape and visual impact assessment. Further information on EIA scoping can be found in **Chapter 5: Approach to the EIA**.

10.5.2 Several supporting scoping responses from consultees were provided alongside the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) (albeit they do not form part of the Scoping Opinion itself). Despite not forming part of the Scoping Opinion, they have also been considered, where it was deemed to be appropriate, in this Environmental Statement. Those relevant to the LVIA include:

- Buckinghamshire Council (dated 05 January 2024);
- London Borough of Hounslow (dated 15 December 2023); and
- Natural England (dated 08 December 2023).

10.5.3 This Section provides an update to the scope of the LVIA based on the most up-to-date information and the Scoping Opinion (**Appendix 1.6: Scoping Opinion**). It updates the evidence base for scoping out elements following further iterative assessment and is summarised in **Table 10.4**.

Scoping Opinion

10.5.4 **Table 10.4** sets out the relevant Scoping Opinion comments received from the LBH and how they have been addressed in this Environmental Statement.

Table 10.4. Scoping Opinion comments received from the LBH

Scoping Opinion comment	How is this addressed?
"*12 Landscape and Visual Impacts* ***12.1 The proposed noise barrier will likely have an adverse visual impact on Longford however the extent of this is not likely to be significant in the context of the EIA Regulations.*** ***12.2 The landscape is not particularly sensitive in the context of the EIA Regulations (i.e. nationally or internationally designated) and is currently dominated by an operational airport. There is an existing noise barrier in situ around Longford which provides attenuation to the neighbouring airport. The magnitude of change is therefore of a low nature and the sensitivity of the receptor is low to moderate.***	This is acknowledged by the Applicant and whilst a LVIA can be scoped out as noted by the LBH, a proportionate LVIA has still been undertaken to take into account comments from other consultees as noted in **Table 10.5**. For ease it has been included within this Environmental Statement.

Scoping Opinion comment	How is this addressed?
12.3 The visual impacts of the barrier will still need to be considered as part of the material planning matters in accordance with planning policies. This will identify any likely harm and measures to reduce or avoid such harm where feasible. ***12.4 The operational impacts on the landscape are also not considered to be a likely significant effect. The use of the landscape, particularly the open spaces that will be subject to a change in noise levels, will be assessed through the People and Communities section with overlaps in relation to health.*** ***28 The visual impacts on the landscape can be scoped out of the ES but will be considered as a material planning matter through the conventional application of planning policies.*****"**	

10.5.5 **Table 10.5** sets out other comments received from supporting consultees and how they have been addressed in this Environmental Statement .

Table 10.5 Supporting comments from other consultees

Scoping Opinion comment	How is this addressed?
Buckinghamshire Council: **"*Section 10 Landscape, should take into consideration the future expansion of the Chilterns AONB/National Landscape.*"**	The Chilterns Area of Outstanding Natural Beauty/National Landscape is approximately 17.5km northwest at its closest, current boundary to the Proposed Development. Future expansion of the boundaries is unknown at this stage; however, four proposals were put forth by the Chilterns Conservation Board to Natural England.[28] One of the proposals, Area 2: South Buckinghamshire, would bring the boundary within approximately 4.4km of the noise barrier. This is outwith the Study Area and is not overlapped by the ZTV. It is therefore excluded from the assessment.
London Borough of Hounslow: **"*The assessment about the village not retaining its tranquillity due to aircraft and the A4 does not really***	The noise barrier component of the Proposed Development would not impact the tranquillity of Longford Village.

[28] Chilterns Conservation Board (n.d.) *The Case for Reviewing the Boundary of the Chilterns AONB*. [online] Available at: https://democracy.cityoflondon.gov.uk/documents/s175979/EFCC%20-%20Appendix%204%20-%20Chilterns%202018%20Reviewing%20the%20Boundary%20of%20the%20Chilterns%20AONB.pdf [Accessed: 06 June 2024].

Scoping Opinion comment	How is this addressed?
reflect what is said in the Conservation Area Appraisal for the Longford Village: ***Paragraph 7.0 of the CA details the problems, pressures and capacity for change in the conservation area, "The expansion of Heathrow airport, and the increasing intensity of its use, provides pressure for change. The retention of the special architectural and historic character and appearance of the Conservation Area will be a particular consideration."*** ***Page 20 of the character assessment goes on to state that "Heathrow has a major impact on the southern half of the borough. It is a dominant form in terms of its land use, the infrastructure required to sustain it and the impact it has in terms of safety zones, noise and air quality."*** ***The CA concludes on page 37 that "Indeed the southern quarter of the borough has been wholly dominated by airport infrastructure since the 1940s when Heathrow was significantly expanded. This is a significant departure from the suburban housing, town centres and semi-rural areas that characterise the townscape of the rest of the borough."*** ***This demonstrates the significant impact expansion of Heathrow Airport can have on the surrounding residential areas and is a testament to the need to safeguard the existing landscape and visual baseline. As the proposal develops, we would be happy to share some of the character assessments from the emerging Hounslow Character, Sustainability and Design SPD to inform the EIA."***	The baseline townscape character and any likely impacts have been assessed within the LVIA. The Hounslow Character, Sustainability and Design Supplementary Planning Document[29] (May 2024) was adopted by the LBH in May 2024. This has been reviewed; however, there is no visibility within the Study Area from the LBH.
Natural England: **"*The environmental assessment should refer to the relevant National Character Areas. Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.*** ***The ES should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of***	This is acknowledged by the Applicant. The LVIA includes the host NCA 115. The LVIA has included an assessment on the local landscape character using landscape assessment methodologies, including GLVIA3.

[29] London Borough of Hounslow (2024) *Character, Sustainability and Design Codes SPD*. [online] Available at: https://www.hounslow.gov.uk/info/20034/planning_policy/2301/emerging_borough_character_and_design_study_spd [Accessed: 05 September 2024].

Scoping Opinion comment	How is this addressed?
Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character. A landscape and visual Impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in Guidelines for Landscape and Visual Impact Assessment 2013 (3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management.	The LVIA has been undertaken in accordance with best practice guidance including GLVIA3.
For National Parks and AONBs, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status. The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.	The LVIA has considered relevant cumulative developments for each receptor. **Chapter 3: Description of the Proposed Development** of the Environmental Statement describes the embedded environmental measures and alternative layouts. Enhancement in the form of Biodiversity Net Gain is set out in **Chapter 12: Biodiversity**.
To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the National Design Guide and National Model Design Code. The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit. **"**	Local and national design guidance and policies are considered in the LVIA, including the National Design Guide[16] and National Model Design Code[17].

Elements Scoped out

The elements shown in **Table 10.6** are not considered to give rise to likely significant effects as a result of the noise barrier component of the Proposed Development and have therefore been excluded from the LVIA as addressed in the Scoping Report (**Appendix 1.5: Scoping Report**) and confirmed in the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) received on 01 February 2024.

Table 10.6 Elements scoped out of the assessment

Element scoped out	Justification
Receptors out with the ZTV.	All receptors within the LVIA Study Area that are outwith the ZTV would have no view of the noise barrier and are scoped out.
Construction and operation effects of other components of the Proposed Development including the runway alternation within the boundary of the Airport.	The proposed works and runway changes within the boundaries of the Airport are at ground level, characterise existing and expected development within an airport, and are contained by existing infrastructure. They are therefore unlikely to result in any significant effects on the existing landscape and visual resource and are therefore scoped out of the assessment.
Decommissioning effects of the noise barrier.	Due to the long term nature of the noise barrier, decommissioning effects have been scoped out.
Tranquility effects on landscape and visual receptors in the Study Area.	As noted in the Scoping Report (**Appendix 1.5: Scoping Report**), because the noise barrier itself would not have an effect on the tranquility experienced by landscape and visual receptors, it has been excluded from the assessment.
Visual assessment of aircrafts visible in the sky.	Although there would be a redistribution of the direction and frequency of close / distant views of aircraft from these locations, the baseline condition includes frequent visibility of planes overhead and occasionally within the easterly operations direction. As such, the visual effects of overflying aircraft are scoped out of the assessment as these views exist under the baseline condition.

Elements scoped in

Construction phase

10.5.6 The following elements are considered to have the potential to give rise to likely significant landscape and visual effects during construction of the noise barrier component of the Proposed Development and have therefore been considered within this assessment:

- Construction plant and equipment at the noise barrier and along Wright Way;
- The Site compound, parking facilities, and welfare station at the Terminal 5 pod car park; and
- Heavy goods vehicle (HGV) movements on the PRoW between the concrete batching plant and Wright Way.

Operational phase

10.5.7 The following element is considered to have the potential to give rise to likely significant landscape and visual effects during operation of the Proposed Development and have therefore been considered within this assessment:

- The noise barrier, consisting of timber and Perspex at a height of 5m and 7m.

Landscape and visual receptors included in the assessment

10.5.8 The following landscape receptors are included in the LVIA and assessed in **Section 10.6** and **Section 10.7**:

- NLA 1: Colne River Valley;
- NLA 12: Hounslow Gravel; and
- Colne Valley: Harmondsworth to Stanwell Moor LCA.

10.5.9 The following visual receptors are included in the LVIA:

- Settlement of Longford;
- Transport routes: Road users of Bath Road;
- Recreational routes: PRoW: Y23 and the permissive bridleway south of Bath Road at Colne Valley Biodiversity Site;
- Recreational and tourist destinations: Longford 'pocket park', also known as the Peggy Bedford Biodiversity Site; and
- Harmondsworth Moor (within Colne Valley Regional Park).

Embedded environmental measures

10.5.10 As part of the design process, a number of embedded environmental measures have been adopted to reduce the potential for effects on landscape and visual receptors. These embedded environmental measures have evolved over the development process as the EIA has progressed and in response to consultation.

10.5.11 These measures also include those that have been identified as good or standard practice and include actions that would be undertaken to meet existing legislation requirements. As there is a commitment to implementing these embedded environmental measures, and also to various standard sectoral practices and procedures, they are considered inherently part of the design and are set out in this Environmental Statement.

10.5.12 Embedded environmental design measures that are particularly relevant to the landscape and visual assessment are set out in **Table 10.7**.

Table 10.7 Embedded environmental design measures

Environmental measure	Additional Reference
The protection of key landscape resources such as existing vegetation (on site and around boundaries). The Contractor would be required to work in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations*[30].	This measure would reduce as far as practical the landscape and visual effects of the noise barrier.
Selective location of the construction compound, welfare facilities and temporary storage of materials and plant.	The siting of the noise barrier construction compound and associated infrastructure would be within Heathrow Terminal 5 Pod car park which has limited visibility from Longford.
Designated routes around the proposed noise barrier for construction vehicles including plant such as cranes.	Construction access to the noise barrier would be via Wright's Way and a gate road on the south side of the Duke of Northumberland's River which would have a limited landscape and visual effect.
Reduction in height of the noise barrier near King's Bridge.	This measure would reduce the visual effects on users of Bath Road in the vicinity of King's Bridge, including vehicle users, walkers and cyclists.
Upper 2m of noise barrier would be constructed of transparent material (e.g. Perspex or equivalent material).	The transparency ensures retention of the visual and landscape context for receptors in the vicinity of the noise barrier.

10.6 Assessment of landscape effects

Landscape Character

Natural Landscape Area (NLA) 1: Colne River Valley

Sensitivity

10.6.1 The Colne River Valley (NLA 1) is characterised by a patchy landscape, with a diverse mosaic of predominantly urban and industrial uses juxtaposed by the meandering waterways and floodplains. Within the Study Area in the Lower Colne, major road networks and dense development render the landscape patchy and often with a stronger sense of developed and industrial use with the waterbodies and historic villages minimised.

10.6.2 Within the wider NLA, recreational routes, wetlands, open space corridors and some arable farmland border the River Colne and the network of canals. Within the vicinity of the noise barrier component of the Proposed Development, the landscape is strongly characterised by urban influences. The distinctiveness of waterbodies, riparian woodlands and open grassland notable elsewhere in the NLA is mostly absent within the Study Area. The River

[30] British Standards Institution (2012) *BS 5837:2012 - Trees in relation to design, demolition and construction. Recommendations*.

Colne and Duke of Northumberland's River are minimised by adjacent development and the network of major routes that transect it and restrict access to its edges. The value of the landscape is assessed as **Low**, with a **Medium** value in other areas of the NLA.

10.6.3 The influences of the major road network and industrial development are evident near the noise barrier and reduce the susceptibility of the host landscape. Additionally, mature plantings and built form along Bath Road and the Duke of Northumberland's River enclose the landscape in some areas which further reduces the landscape susceptibility. The susceptibility of the NLA within the Study Area is **Low**, and **Medium** across the whole NLA.

10.6.4 With a Low to Medium value and a Low to Medium susceptibility, the overall sensitivity to change of NLA 1: Colne Valley is therefore **Medium-Low**.

10.6.5 Landscape elements (trees, hedges and woodland) are indicative of higher levels of sensitivity as they are not easily replaced.

Effects during construction

10.6.6 There is potential for both direct changes to landscape elements and landscape character resulting from their alteration/loss; as well as the introduction of new features such as the noise barrier component of the Proposed Development, which would change the character of the landscape and pattern of elements within this localised area during the construction phase.

10.6.7 No vegetation is proposed to be removed within the NLA for the construction of the noise barrier. Where vegetation is proposed to be removed outwith the NLA, there would be no direct or indirect effects on the NLA.

10.6.8 The construction works would include the temporary Site compound, welfare units, and set down areas which would be contained within Heathrow Airport Terminal 5 Car Park. Vehicle access would be along Wright Way and an existing private road that follows the southern edge of the Duke of Northumberland's River. Vegetation within the village of Longford and in pockets along the river would largely contain the geographical extent of much of the construction activity from areas to the north and east. To the south of the noise barrier, the landscape is mostly devoid of vegetation with the exception of a grassed verge and predominantly characterised by paved surfaces at the Airport and Wright Way/Western Perimeter Road.

10.6.9 The construction of the noise barrier would result in a magnitude of change ranging from **Zero** at the start of the construction phase to **Medium-Low** during the height of construction activities to the local character of this landscape.

10.6.10 With a combined sensitivity of **Medium-Low** and a **Zero to Medium-Low** magnitude of change, the residual effects on the 'host' NLA and landscape elements during the construction phase would range from **None** to **Minor (Not Significant)**. The geographical extent of these effects would range up to approximately 300m. The duration of these effects would be short-term and the nature of these effects would be temporary, direct and adverse to neutral.

Effects during operation

10.6.11 During operation, all plant and movement associated with the construction activities would be removed and the noise barrier would gain a more 'settled' appearance when compared to the same area during the construction phase.

10.6.12 From the north and east of the noise barrier, landscape effects would be mostly contained by vegetation and built form. From the west and south, the landscape is already characterised by the network of major routes and various infrastructure elements associated with the Airport, the river and the roads, including several existing timber and metal fences along the Duke of Northumberland's River.

10.6.13 The magnitude of change within the localised area of NLA 1 would be **Low.**

10.6.14 With a combined sensitivity of **Medium-Low** and a **Low** magnitude of change, the residual effects on the 'host' NLA and landscape elements during the operational phase would be **Minor/Negligible (Not Significant)**. The geographical extent of these effects would range up to approximately 300m. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.6.15 There are no consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Natural Landscape Area (NLA) 12: Hounslow Gravels

Sensitivity

10.6.16 The Hounslow Gravels (NLA 12) overlaps with the eastern sections of the noise barrier. It is characterised by industrial and suburban development with some areas of open space and riparian corridors. Within the wider NLA, the landscape is typically flat heathland with pockets of scrub and some marginal wetlands along rivers. Within the Study Area, the majority of this NLA is "*dominated by Heathrow Airport*"[31] and mostly devoid of vegetation except low grass between runways and hardstanding. A small portion of the NLA overlaps with Longford 'pocket park' and the Duke of Northumberland's River which has belts of vegetation and parkland trees sheltering it from the built form of the Airport.

10.6.17 The value of the landscape is assessed as **Medium-Low** near the noise barrier (due to the presence of Longford 'pocket park'), with a **Medium** value in other areas of the NLA.

10.6.18 The influences of the roads, car parks, the Thistle Conference Centre and Hotel, and industrial development are evident near the noise barrier which reduce the susceptibility of the host landscape. Additionally, vegetation along the Duke of Northumberland's River and within Longford 'pocket park' encloses the landscape in some areas which further reduces

[31] Natural England (2011) *London's Natural Signatures: The London Landscape Framework, 12: Hounslow Gravels*. [online] Available at: https://publications.naturalengland.org.uk/publication/6540238365130752 [Accessed: 04 September 2024].

the landscape susceptibility. The susceptibility of the NLA within the Study Area is **Low**, and **Medium** across the whole NLA.

10.6.19 With a **Medium-Low** to **Medium** value and a **Low** to **Medium** susceptibility, the overall sensitivity to change of NLA 12: Hounslow Gravels is therefore **Medium-Low**.

10.6.20 Landscape elements (trees, hedges and woodland) are indicative of higher levels of sensitivity as they are not easily replaced.

Effects during construction

10.6.21 Most vegetation within the vicinity of the noise barrier would be retained, however several trees and lower vegetation to the north and east of Heathrow Airport Terminal 5 Car Park would require removal or pruning to accommodate construction activities (see **Appendix 12.6: Arboricultural Impact Assessment**).

10.6.22 Vegetation within the village of Longford, within the 'pocket park', and along the river would largely contain the geographical extent of much of the construction activity from areas to the north and east. To the south of the noise barrier, the landscape is mostly devoid of vegetation and predominantly characterised by the car park, the runways and hardstanding, Wright Way / Western Perimeter Road, and the Heathrow Pod track.

10.6.23 The construction of the noise barrier would result in a magnitude of change ranging from **Zero** at the start of the construction phase to **Medium** during the height of construction activities to the local character of this landscape and the loss of a small number of landscape elements.

10.6.24 With a combined sensitivity of **Medium-Low** and a **Zero to Medium** magnitude of change, the residual effects on the 'host' NLA and landscape elements during the construction phase would range from **None** to **Moderate / Minor (Not Significant)**. The geographical extent of these effects would range up to approximately 100m from the noise barrier. The duration of these effects would be short-term and the nature of these effects would be temporary, direct and adverse to neutral.

Effects during operation

10.6.25 From the north of the noise barrier, landscape effects would be mostly contained by vegetation and built form. From the east and south, the landscape is already characterised by industrial development, car parks, the Thistle Conference Centre and Hotel, and the Airport.

10.6.26 The magnitude of change within the localised area of NLA 12 would be **Medium-Low** within 100m and **Low** to **Zero** beyond this distance.

10.6.27 With a combined sensitivity of **Medium-Low** and a **Medium-Low** magnitude of change, the residual effects on the 'host' NLA and landscape elements during the operational phase would be **Minor (Not Significant)** to **Negligible to None** beyond 100m. The geographical extent of these effects would range up to approximately 100m. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.6.28 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Colne Valley: Harmondsworth to Stanwell Moor LCA

Sensitivity

10.6.29 The Colne River Valley: Harmondsworth to Stanwell Moor LCA is characterised by flat, lowland floodplain with strong influences from the Airport and its associated infrastructure, as well as the visual intrusion of low-flying aircraft. Although the LCA does not overlap with the Airport, development associated with the Airport is evident throughout the LCA and it overlaps with the major infrastructure routes that serve Heathrow.

10.6.30 Historic villages are evident along the edges of the River Colne, including the village of Longford. Elsewhere, the dense development associated with the major roads and the Airport are contrasted by Harmondsworth Moor and restored gravel extraction sites which are now small pastures and rough ground with some woodlands along the River Colne and within Heathrow Colne Valley Biodiversity Site.

10.6.31 As noted in the LCA description, "*there is limited accessibility via footpaths and bridleways. Recreational opportunity and experience is therefore constrained and often interrupted by development and transport routes such that the River Colne can be difficult to perceive or experience*"[21].

10.6.32 The value of the landscape is assessed as **Medium-Low** due to the fragmentation of pockets of low-lying floodplain pastures and wet woodlands by large scale development and major roads. Due to the pressures of development on the River Colne floodplain from housing and commercial/industrial development, as well as expanding road networks, the susceptibility of the LCA is assessed as **Medium**.

10.6.33 With a **Medium-Low** value and a **Medium** susceptibility, the overall sensitivity to change of the Colne Valley: Harmondsworth to Stanwell Moor LCA is therefore **Medium**.

Effects during construction

10.6.34 Vegetation within the village of Longford and in pockets along the river would largely contain the geographical extent of much of the construction activity from areas to the west and north within the LCA.

10.6.35 The construction of the noise barrier would result in a magnitude of change ranging from **Zero** at the start of the construction period to **Medium** during the height of construction activities to the local character of this landscape.

10.6.36 With a combined sensitivity of **Medium** and a **Zero to Medium** magnitude of change, the residual effects on the 'host' NLA and landscape elements during the construction phase would range from **None** to **Moderate (Not Significant)**. The geographical extent of these effects would range up to approximately 300m. The duration of these effects would be short-term and the nature of these effects would be temporary, direct and adverse to neutral.

Effects during operation

10.6.37 From the north of the noise barrier, landscape effects would be mostly contained by vegetation and built form. From the west, the LCA is already characterised by major routes and various infrastructure elements associated with the Airport, including several existing timber and metal fences along the Duke of Northumberland's River.

10.6.38 The magnitude of change within the localised area of the LCA would be **Medium-Low** and **Low to Zero** beyond 300m.

10.6.39 With a combined sensitivity of **Medium** and a **Medium-Low** magnitude of change, the residual effects on the LCA during the operational phase would be **Moderate/Minor (Not Significant)**. The geographical extent of these effects would range up to approximately 300m, beyond which there would be **Negligible to None** residual effects. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.6.40 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

10.7 Assessment of visual effects

Viewpoint Assessment

10.7.1 **Appendix 10.2: Viewpoint Assessment** provides a complete viewpoint analysis of all six viewpoints which have been assessed as part of the LVIA. A summary table is provided in **Table 10.8**.

Table 10.8 Summary of Viewpoint Assessment

Viewpoint Number	Viewpoint title	Distance to noise barrier (m)	Sensitivity	Level of Effect: Construction	Level of Effect: Operation
1	Bridge over the Duke of Northumberland's River	74	Medium (walkers) Medium-Low (cyclists, vehicle users)	Minor to None (**Not Significant**)	Minor (winter) to Minor/Negligible (summer) (**Not Significant**)
2	Eastern section of Longford 'pocket park'	67	Medium	Moderate to None (**Not Significant**)	Minor (winter) to Minor/Negligible (summer) (Not Significant)
3	Western section of Longford 'pocket park'	77	Medium	Moderate/Minor to None (**Not Significant**)	Minor (winter) to Minor/Negligible (summer) to No View (**Not Significant**)
4	Padbury Oaks office complex	95	Low	Minor/Negligible to None (**Not Significant**)	Negligible (**Not Significant**)
5	Weekly House Listed Building	119	Low	Negligible to None (**Not Significant**)	Negligible (**Not Significant**)
6	King's Bridge on Bath Road	50	Medium (walkers) Medium-Low (cyclists, vehicle users)	Moderate (**Not Significant**) (walkers) Minor (**Not Significant**) (cyclists and vehicle users)	Moderate to Minor (**Not Significant**) (winter) Minor to Negligible (**Not Significant**) (summer)

Settlements

Longford

10.7.2 The village of Longford is located to the north of the noise barrier. The village is intersected by Bath Road and bound to the south by the Duke of Northumberland's River and Wright Way/Western Perimeter Road which serve the Airport. To the west and north of the village are the A3044 (Stanwell Moor Road) and the A4 (Colnbrook Bypass).

Sensitivity

10.7.3 The sensitivity of receptors (people) at settlements has been assessed as **High** through a combination of high susceptibility and medium value. Residents are assessed as of high susceptibility in accordance with the GLVIA3[9] and **Appendix 10.1: LVIA Methodology**. The value of the view is also likely to be regarded as high by the residents themselves, but the views from Longford are not designated for their scenic value and accord a medium value in this respect. The overall sensitivity is therefore assessed as **High**.

Effects during construction

10.7.4 Along the Duke of Northumberland's River and bordering residential properties and Bath Road are belts of mature vegetation and buildings that screen views toward the noise barrier component of the Proposed Development. Potential glimpsed views of the noise barrier and construction activities along Wright Way are limited to residential properties located in the southwestern area of Longford. This is a result of reduced vegetative screening, particularly in the winter months, and increased proximity to Wright Way. Visibility of the construction Site compound within the Terminal 5 Car Park is limited from Longford, with potential glimpsed views from the residential flats between Littlebrook Nursery and the Thistle Conference Centre in the winter months. The magnitude of change would be **Medium-Low to Zero**.

10.7.5 The level of effect during construction would be **Moderate to No View (Not Significant)**. The duration of these effects would be short-term and the nature of these effects would be temporary, direct and adverse to neutral.

Effects during operation

10.7.6 There would be limited views of the noise barrier from Longford due to a combination of screening from vegetation and built form of residences and commercial buildings. The magnitude of change would be **Low to Zero**, and the level of effect would be **Moderate / Minor to No View (Not Significant)**. From the residential flats along Bath Road to the northeast of the proposed noise barrier, the magnitude of change would be **Medium-Low** during the winter months and **Low** during the summer months. The level of effect would be **Moderate** (**Not Significant)** in the winter months**.** The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.7.7 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Transport routes

Bath Road

10.7.8 Bath Road runs east-west and connects the village of Longford to the A3044 (Stanwell Moor Road) and the A4 (Colnbrook Bypass). At its closest, the road is approximately 50m to the north of the noise barrier; at its furthest, it is approximately 170m distance.

Sensitivity

10.7.9 Receptors on Bath Road include vehicle users, cyclists, and walkers. Drivers and cyclists are typically focused on the road and will experience the landscape transiently and in the direction of travel. The sensitivity of these receptors are assessed as **Medium-Low** (Medium value and Low susceptibility). Users of Bath Road who are walking as means of travel use the footpath provision on both sides of the road. Walkers typically tend focus on the surrounding landscape, however given that the footpaths along Bath Road are not designated routes and located near an airport, walkers are assessed as having **Medium** sensitivity (Medium value and Medium susceptibility).

Effects during construction

10.7.10 Construction activities, including the movement of plant along Wright Way, would be visible from limited areas of Bath Road with glimpsed views of plant and vehicular movement. A section of the route near King's Bridge would have visibility for approximately 40m due to limited vegetative screening or that of built form. Additionally, construction activities in this section of Bath Road would be viewed transiently and at oblique angles to the direction of travel. The construction compound at Heathrow Airport Terminal 5 Car Park would not be visible from Bath Road. The magnitude of change would range from **Zero to Low**, and the level of effect would be **Minor** (walkers) **to Minor/Negligible** (road users) **to No View (Not Significant).** The duration of these effects would be short-term and the nature of these effects would be temporary, indirect and neutral.

Effects during operation

10.7.11 There would be limited views of the Proposed Development for users of Bath Road as a result of screening from both vegetation and built form. Near King's Bridge, a short section of the route would have glimpsed visibility of the noise barrier and viewed perpendicular to the direction of travel. For walkers or recreational receptors who may pause at King's Bridge, the noise barrier would be visible behind an existing timber fence and mid-height vegetation. The magnitude of change would be **Negligible/Zero**, and the level of effect would be **Minor/Negligible** (walkers) **to Negligible** (road users) **to No View**. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, indirect and neutral.

Cumulative effects

10.7.12 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Recreational routes

Public Right of Way (PRoW) Y23

10.7.13 PRoW Y23 is a Byway Open to All Traffic between the A4 (Colnbrook Bypass) and Bath Road, approximately 400m west of the noise barrier. It connects the Colne Valley Biodiversity Site to the south to Harmondsworth Moor to the north.

Sensitivity

10.7.14 The route is used by walkers who likely have an appreciation of the landscape that forms part of the recreational experience. As a designated route, the sensitivity of users is assessed as **High** (High value and High susceptibility).

Effects during construction

10.7.15 Theoretical visibility along PRoW Y23 is patchy due to vegetative screening on both sides of the route, as well as trees along the A3044 (Stanwell Moor Road) to the east. In reality, visibility of construction activities would be limited due to screening from mature trees and scrub, as well as built form within Longford. The magnitude of change would be **Negligible-Zero to Zero**, and the level of effect would be **Minor to No View (Not Significant)**. The duration of these effects would be short-term and the nature of these effects would be temporary, indirect and neutral.

Effects during operation

10.7.16 While the ZTV shows theoretical visibility of the noise barrier from short sections of the path, swaths of the trees along the River Colne screen visibility from PRoW Y23. Where visible from elevated areas or sections of the route with limited vegetative screening (particularly during the winter months), the noise barrier would be seen behind the A3044 and alongside built form in Longford. The magnitude of change would be **Negligible-Zero to Zero**, and the level of effect would be **Minor to No View (Not Significant)**. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, indirect and neutral.

Cumulative effects

10.7.17 There are relevant no consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Permissive bridleway, Colne Valley Biodiversity Site

10.7.18 This permissive bridleway is a recreational route through the Colne Valley Biodiversity Site between Bath Road and the A3113 (Airport Way).

Sensitivity

10.7.19 The route is used by recreators (walkers, cyclists, birdwatchers, etc.) who likely have an appreciation of the landscape that forms part of the recreational experience. As a designated route, the sensitivity of users is assessed as **High** (High value and High susceptibility).

Effects during construction

10.7.20 Theoretical visibility along the bridleway is patchy due to vegetative screening on the banks of the River Colne, as well as the undulating topography within the Colne Valley Biodiversity Site. Construction activities on Wright Way may be visible from short, elevated sections of the path where vegetative screening permits filtered views, increasing after leaf fall. The magnitude of change would be **Negligible-Zero**, and the level of effect would be **Minor to No View (Not Significant)**. The duration of these effects would be short-term and the nature of these effects would be temporary, indirect and neutral.

Effects during operation

10.7.21 From short, elevated sections of the route, the noise barrier would be seen behind the major road network and appear to form a part of the existing Airport and transport infrastructure. The magnitude of change would be **Negligible-Zero**, and the level of effect would be **Minor to No View (Not Significant)**. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, indirect and neutral.

Cumulative effects

10.7.22 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Recreational and tourist destinations

Longford pocket park

10.7.23 Longford ‘pocket park’, also known as the Peggy Bedford Biodiversity Site, is located approximately 30m north of the noise barrier component of the Proposed Development. It is bounded to the north, east and west by Bath Road and residences. The Duke of Northumberland’s River is located to the south, with fencing surrounding the park boundaries which inhibits access to the river. Within the park are mature trees and shrubs with large areas of amenity grass and some seating. Scattered around the borders are various telecom masts, equipment cabinets and infrastructure associated with the Duke of Northumberland’s River.

Sensitivity

10.7.24 Longford 'pocket park' is not a designated park, however it is recognised locally and a Medium value is adjudged. Due to the mature parkland trees and shrubs that enclose it, as well as the existing infrastructure throughout the park and visible along its edges, the susceptibility is assessed as Medium-Low.

10.7.25 With a Medium value and a Medium-Low susceptibility, the overall sensitivity is assessed as **Medium**.

Effects during construction

10.7.26 There would be limited visibility of the construction activities and the temporary construction site in Heathrow Airport Terminal 5 Car Park due to mature parkland trees and mixed scrub along the Duke of Northumberland's River. Additionally, some construction works and plant would be screened by the timber fencing and evergreen trees surrounding the curtilage of a residence in the middle of the park. In the winter and within approximately 100m of the noise barrier, construction activities and plant would be visible, albeit filtered by scrub and trees.

10.7.27 The magnitude of change would be **Zero** at the start of construction, increasing to **Medium** (in the winter months) to **Medium-Low** (in summer). The level of effect would be **Moderate (Not Significant)** (winter) to **Moderate/Minor (Not Significant)** (summer) to **No View**. The duration of these effects would be short-term and the nature of these effects would be temporary, direct and adverse.

Effects during operation

10.7.28 During operation, all plant and movement associated with the construction activities would be removed and the proposed noise barrier would gain a more 'settled' appearance when compared to the same area during the construction phase. In the summer months, the noise barrier would be visible from limited areas of the park, predominantly in the west behind existing infrastructure associated with the Duke of Northumberland's River (see Viewpoint 3 in **Figure 10.4** of **Appendix 10.3: LVIA Figures**). In the winter, the noise barrier would be visible, albeit heavily filtered by trees and scrub and behind existing fencing.

10.7.29 The magnitude of change would be **Medium-Low** (winter) and **Low to Negligible-Zero** (summer), and the level of effect would be **Moderate/Minor to Minor/Negligible (Not Significant)** to **No View**. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.7.30 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Harmondsworth Moor (within Colne Valley Regional Park)

10.7.31 Harmondsworth Moor is a greenspace parkland within the Colne Valley Regional Park located approximately 500m north of the noise barrier component of the Proposed

Development. The park is a restored landfill with undulating topography through which the Wraysbury River and River Colne flow. Riparian corridors and pockets of tree plantings delineate areas of open grassland throughout the park. There are numerous public footpaths located in Harmondsworth Moor, including PRoWs Y8, Y11 and Y13.

Sensitivity

10.7.32 The park is used by recreational receptors who are likely to have an appreciation of the landscape that forms part of the recreational experience. As well as three designated footpaths located on Harmondsworth Moor, there are also three destinations of interest. These include two historical landmarks known as The Keyhole and Halifax Memorial, and the highest point of Harmondsworth Moor, known as Prospect Hill. Users of Harmondsworth Moor are therefore likely to attach high value to the area. Bordering the park to the south, west and north are major roads, including the M25, A4 and M4. Much of the park is open, however pockets and belts of trees border the paths, Wraysbury River, and boundaries of the park. The susceptibility is assessed as Medium. The overall sensitivity is assessed as **Medium-High**.

Effects during construction

10.7.33 Potential views of construction activity from Harmondsworth Moor are intermittently screened by vegetation within the park and the built form of the British Airways office buildings and residential properties in Longford. Although the three points of interest are located in open, elevated areas with sparse tree cover, intervening vegetation and built form within and outwith the park would screen construction activity in all seasons.

10.7.34 The magnitude of change would be **Negligible** to **Zero**, and the level of effect would be **Minor (Not Significant)** to **No View**. The duration of these effects would be short-term and the nature of these effects would be temporary, indirect and neutral.

Effects during operation

10.7.35 During the operational phase, there would be very limited visibility of the noise barrier due to distance and screening from buildings and vegetation. Visibility would likely be limited to elevated areas during the winter months; however, the noise barrier would be seen in the background of the A4, A3044, and Bath Road. Additionally, the Proposed Development would be consistent with the character of the Airport and its associated infrastructure. Its close proximity to the Airport would blend it in to the existing landscape and as such, it is anticipated that the noise barrier would be imperceptible.

10.7.36 The magnitude of change would be **Negligible-Zero**, and the level of effect would be **Minor (Not Significant)**. The duration of these effects would be long-term (reversible), and the nature of these effects would be permanent, direct and adverse to neutral.

Cumulative effects

10.7.37 There are no relevant consented developments or those in the application or scoping phases of development within the Study Area. Therefore, there would be no cumulative effects.

Opportunities for environmental enhancement

10.7.38 Landscape enhancement in the form of compensatory tree planting which could be close to the location of removal.

10.8 Cumulative effects

10.8.1 There is the potential for landscape and visual amenity effects on sensitive receptors to interact with other aspects and create a greater effect (known as intra-project effects) These are considered within **Chapter 9: Public Health** and **Chapter 13: Cumulative Effects**.

10.8.2 There is also the potential for landscape and visual amenity effects to combine with the effects arising from other developments (inter-project effects). Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. An assessment inter-project effects is considered within in **Chapter 13: Cumulative Effects** of this ES.

10.9 Assessment Summary

10.9.1 **Table 10.9** and **Table 10.10** provide a summary of the findings of the LVIA.

Construction phase effects

Table 10.9 Summary of residual effects during construction

Receptor	Summary of residual effect	Significance of residual effect	Summary rationale
Landscape receptors			
NLA 1: Colne River Valley	Minor (up to 300m) to None	**Not Significant**	Vegetation and existing infrastructure/built form would largely contain the geographical extent of the landscape effects. Elsewhere, the landscape is characterised by the major road network and hardstanding of the Airport. There would be no tree removal within the NLA.
NLA 12: Hounslow Gravels	Moderate/Minor (up to 100m) to None	**Not Significant**	The landscape is locally characterised by the major road network, car parks and large areas of hardstanding at the Airport. Landscape effects would be most notable in the vicinity of Longford 'pocket park' and the Duke of Northumberland's River. Tree removal would negatively impact the landscape at a localised level.
Colne Valley: Harmondsworth to Stanwell Moor LCA	Moderate (up to	Not Significant	Vegetation and existing infrastructure/built form would largely contain the geographical extent of the landscape effects. Elsewhere, the

Receptor	Summary of residual effect	Significance of residual effect	Summary rationale
	300m) to None		landscape is characterised by the major road network and hardstanding of the Airport. There would be no tree removal within the LCA.
Visual receptors			
Longford	Moderate to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation and built form.
Bath Road	Minor to No View (walkers) Minor/Negligible to No View (road users)	**Not Significant**	There would be limited visibility due to the screening effects of existing vegetation and built form. Views would be experienced transiently and at oblique angles to the direction of travel.
PRoW Y23	Minor to No View	**Not Significant**	There would be limited visibility due to the screening effects of existing vegetation and built form.
Permissive Bridleway, Colne Valley Biodiversity Site	Minor to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation and undulating topography.
Longford 'pocket park'	Moderate (winter) to No View Moderate/Minor (summer) to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation.
Harmondsworth Moor (Colne Valley Regional Park)	Minor to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation and build form.

Operational phase effects

Table 10.10 Significant residual effects during operation

Receptor	Summary of residual effect	Significance of residual effect	Summary rationale
Landscape receptors			
NLA 1: Colne River Valley	Minor/Negligible up to 300m	**Not Significant**	Vegetation and existing infrastructure / built form would largely contain the geographical extent of the landscape effects. Elsewhere, the landscape is characterised by the major road network and hardstanding of Heathrow Airport. There would be no tree removal within the NLA.
NLA 12: Hounslow Gravels	Minor (up to 100m) to Negligible to None beyond	**Not Significant**	The landscape is locally characterised by the major road network, car parks and large areas of hardstanding at Heathrow Airport. Landscape effects would be most notable in the vicinity of Longford 'pocket park' and the Duke of Northumberland's River.
Colne Valley: Harmondsworth to Stanwell Moor LCA	Moderate/Minor (up to 300m) to Negligible to None beyond	**Not Significant**	Vegetation and existing infrastructure / built form would largely contain the geographical extent of the landscape effects. Elsewhere, the landscape is characterised by the major road network and hardstanding of Heathrow Airport. There would be no tree removal within the LCA.
Visual receptors			
Longford	Moderate to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation and built form.
Bath Road	Minor/Negligible (walkers) to No View Negligible (road users) to No View	**Not Significant**	There would be limited visibility due to the screening effects of existing vegetation and built form. Views would be experienced transiently and at oblique angles to the direction of travel.
Public Right of Way Y23	Minor to No View	**Not Significant**	There would be limited visibility due to the screening effects of existing vegetation and built form.
Permissive Bridleway, Colne Valley Biodiversity Site	Minor to No View	**Not Significant**	There is limited visibility due to screening effects of existing vegetation and undulating topography.

Receptor	Summary of residual effect	Significance of residual effect	Summary rationale
Longford 'pocket park'	Moderate/Minor (winter) Minor / Negligible (summer)	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation.
Harmondsworth Moor (Colne Valley Regional Park)	Minor to No View	**Not Significant**	There would be limited visibility due to screening effects of existing vegetation.