Department for Transport

AECOM

Appraisal of Sustainability for the draft Heathrow Expansion National Policy Statement

Scoping Report: Main Report

Department for Transport

June 2026

Quality information

Prepared by	Checked by	Verified by	Approved by
A.V. Senior Environmental Consultant B.R. Graduate Environmental Planner O.M. Consultant Planner E.B. Consultant Town Planner	I.M. Associate Director	N.C.B. Technical Director	N.C.B. Technical Director

Revision History

Revision	Revision date	Details	Name	Position
V1.0	04.02.2026	Initial version for client comment	N.C.B.	Technical Director
V2.0	26.02.2026	Updated version following client comments	N.C.B.	Technical Director
V3.0	04.03.2026	Consultation version	N.C.B.	Technical Director
V4.0	30.04.2026	Updated version following consultation comments	N.C.B.	Technical Director
V5.0	16.06.2026	Accessibility amendments	N.C.B.	Technical Director

Prepared for:

Department for Transport

Prepared by:

AECOM Limited
3 Rivergate
Temple Quay
Bristol
BS1 6ER

Table of contents

Figures

Tables

1. Introduction

1.1. Aims of the report

1.1.1. The Department for Transport (DfT) has commissioned AECOM to prepare an Appraisal of Sustainability (AoS) to support the preparation and publication of the Heathrow Expansion National Policy Statement (HENPS).

1.1.2. The AoS is a systematic process for identifying, describing and evaluating the likely significant social, environmental and economic effects of the HENPS, together with the reasonable alternatives considered. It is intended to inform policy preparation by ensuring that sustainability considerations are taken into account and clearly presented to decision-makers and consultees.

1.1.3. The HENPS is intended to replace the Airports National Policy Statement (ANPS) designated in 2018. The renaming of the policy statement reflects changes in policy, legislation and evidence since that time and clarifies that the document does not reconsider the strategic decision to support expansion at Heathrow Airport. Instead, the draft HENPS provides an updated, Heathrow-specific framework that builds on the strategic conclusions of the ANPS while strengthening and updating policy requirements and safeguards.

1.1.4. Since the designation of the ANPS in 2018, there have been significant changes in the context relevant to aviation and sustainable development, including strengthened statutory climate change commitments, updates to environmental and public health policy, evolving patterns of aviation demand and advances in evidence. In this context, the preparation of the draft HENPS provides an opportunity to reassess the sustainability implications of the policy framework while maintaining the established policy position in support of Heathrow expansion.

1.1.5. The AoS forms part of a wider suite of technical assessments undertaken to inform the draft HENPS, alongside a Habitats Regulations Assessment (HRA), a Health Impact Analysis (HIAn) and an Equalities Impact Assessment (EqIA).

1.1.6. The AoS Scoping Report comprises a Main Report and a supporting Technical Annex, which together set out the proposed scope for the AoS, including the evidence base, key issues and the AoS framework against which the draft HENPS can be appraised. This Main Report provides a high-level overview of the proposed scope for each AoS theme, including a summary of the relevant policy context, baseline conditions and key sustainability issues. The accompanying Technical Annex contains more detailed baseline information and a more comprehensive review of relevant plans, policies and strategies.

Note to reader:

1.1.7. The AoS Scoping Report was originally prepared and consulted upon in support of the 'Airport National Policy Statement Update' (ANPS Update). Since completion of the scoping consultation, the National Policy Statement has been renamed the draft Heathrow Expansion National Policy Statement (HENPS). This updated version of the Scoping Report reflects the revised title and incorporates updates arising from the scoping consultation.

1.2. Background: the ANPS / HENPS

1.2.1. The Department for Transport (DfT) is responsible for setting national aviation policy and works with the aviation industry, including airlines, airports, the Civil Aviation Authority and NATS, the UK's air navigation service provider. Aviation policy is crucial in supporting DfT's priorities to grow the economy, improve transport users' experience and reduce environmental impacts.

1.2.2. National Policy Statements are designated under the Planning Act 2008 to provide the primary basis for decision making on applications for development consent for nationally significant infrastructure projects. In the aviation sector, the ANPS (2018), established the government's strategic policy framework for addressing future airport capacity and associated infrastructure where proposals fall within its scope.

1.2.3. The ANPS was designated in June 2018 following consultation with relevant stakeholders and extensive analysis by the Airports Commission and subsequent government consideration. The Airports Commission, established in 2012, undertook a comprehensive assessment of the UK's future aviation capacity needs and concluded that additional runway capacity was required in the South East of England to maintain the UK's connectivity and international competitiveness, identifying expansion at Heathrow Airport as the preferred strategic option.

1.2.4. Since the designation of the ANPS, there have been significant developments relevant to aviation policy and sustainability. These include changes in the legislative and policy framework, particularly in relation to climate change and the environment, evolving patterns of aviation demand, and further advances in evidence relating to the social, economic and environmental impacts of airport development and operation.

1.2.5. In this context, the Government decided to update and strengthen the policy framework set out in the ANPS and to clarify its scope. This process has resulted in the preparation of the draft HENPS, which is intended to replace the 2018 ANPS. As part of this process, the Government invited proposals and, following assessment, selected a single scheme to inform the draft HENPS. The preparation of the draft HENPS does not revisit the strategic decision taken in 2018 regarding the location for additional hub capacity in the South East of England, but instead considers whether and how the updated policy framework for expansion at Heathrow Airport remains consistent with current policy objectives, legal requirements, and environmental constraints.

1.3. Structure of this scoping report

1.3.1. The AoS will inform the development of the draft HENPS. The purpose of the Scoping Report is to define the scope and methodology for the AoS, and the framework against which the draft HENPS can be appraised.

1.3.2. This AoS Scoping Report is structured as follows:

- Chapter 1: Introduction to the project and the AoS;
- Chapter 2: Background to the AoS process and the role of the Scoping Report;
- Chapters 3 – 13: Topic summaries, including an overview of the policy context, baseline conditions, key issues, and the proposed framework objectives;
- Chapter 14: Proposed AoS Framework; and
- Chapter 15: the next steps following scoping.

1.3.3. This Scoping Report does not indicate or prejudice the outcome of the draft HENPS or any Government decision on delivering additional airport capacity. It seeks views on the scope of the updated AoS and the environmental, social and economic topics to be assessed.

2. Appraisal of sustainability (AoS) explained

2.1. Requirements for AoS

2.1.1. The Planning Act 2008 (part 2, section 5(3)) requires that an "*appraisal of the sustainability of the policy set out in the statement*" must be carried out before an NPS can be designated. The same applies before amending an NPS (part 2, section 6(6)).

2.1.2. An AoS is undertaken to meet the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (as amended) ('the SEA Regulations'). These Regulations implement the requirements of the SEA Directive as assimilated into UK law. Central Government guidance supports a combined approach so that a single appraisal process can meet both SEA requirements and the wider sustainability objectives typically considered in an AoS.

2.1.3. The main purpose of an AoS is to examine the likely social, economic and environmental effects of the proposed NPS. If potential significant adverse effects are identified, the AoS recommends options for avoiding, reducing or mitigating such effects. In this way, the AoS helps inform the preparation of the NPS to provide multiple sustainable development benefits.

2.1.4. AoS is, therefore, a mechanism for assessing and communicating the likely effects of an emerging plan (fulfilling the requirements of the SEA Regulations) while also addressing wider sustainability issues. It informs plan-making both directly (i.e. through structured, systematic and evidence-based analysis), and indirectly (through providing stakeholders with information on potential plan impacts and so facilitating effective consultation).

2.1.5. The approach to the AoS is modelled on relevant Government guidance for SEA and for sustainability appraisal, as there remains no dedicated national guidance specific to AoS for NPSs. This is a staged approach and is set out in **Figure 2-1**.

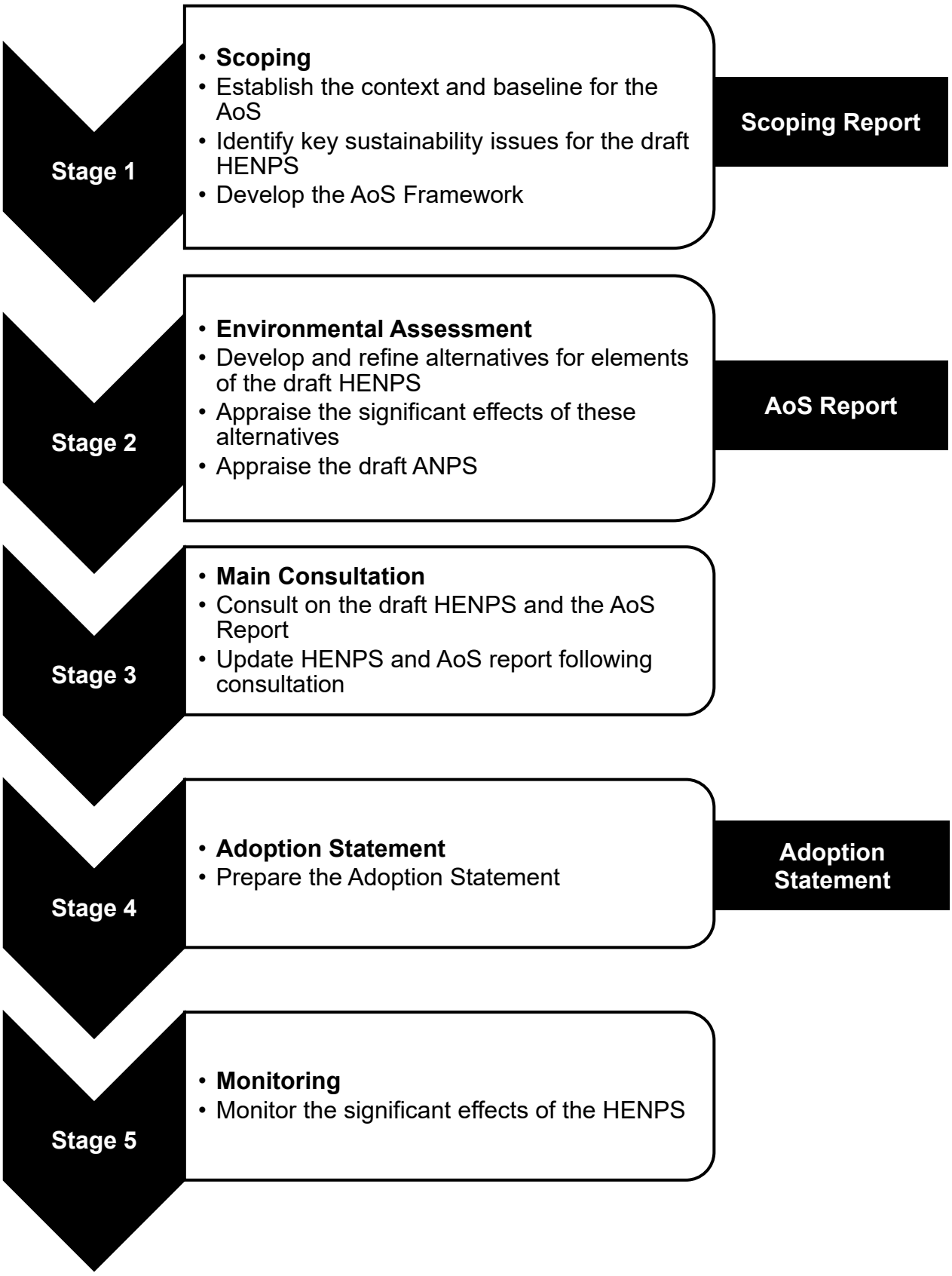
Requirements associated with the Strategic Environmental Assessment (SEA) Regulations

2.1.6. As highlighted above, AoS is undertaken to address the procedures prescribed by the SEA Regulations and widens the scope of the assessment from focusing on environmental issues to further consider social and economic issues.

2.1.7. Two key procedural requirements of the SEA Regulations are that:

- when deciding on 'the scope and level of detail of the information' which must be included in the AoS Report, there is a consultation with nationally designated authorities concerned with environmental issues (stage 1 in **Figure 2-1**); and
- a report (the 'AoS Report') is published for consultation alongside the draft plan that presents an assessment of the draft plan (i.e. discusses 'likely significant effects' that would result from plan implementation) and reasonable alternatives. In the context of an AoS for an NPS, this function is fulfilled by the AoS Report (stage 2 in **Figure 2-1**).

Figure 2-1: Stages of the AoS



2.2. Relationship with other processes

2.2.1. The AoS will be accompanied by the following separate studies: Equalities Impact Assessment (EqIA); Health Impact Analysis (HIAn); and Habitats Regulation Assessment (HRA).

2.2.2. Environmental Impact Assessment (EIA) will be required at the project stage for specific development proposals and is therefore not part of the AoS, but will be informed by its findings where relevant.

Habitats Regulations Assessment (HRA)

2.2.3. Under the Conservation of Habitats and Species Regulations 2017 (as amended), as well as the Conservation of Offshore Marine Habitats and Species Regulations 2017 (together known as the 'Habitats Regulations'), consideration must be given to the potential effects of a plan or project on European sites. HRA determines whether a plan is likely to have a significant effect and, if so, whether an Appropriate Assessment is required. Initial screening and subsequent review of screening conclusions have been undertaken alongside the AoS to reflect the evolving policy position. While HRA is a legally separate process from the AoS, the two assessments have been progressed iteratively, with information shared to ensure consistency.

Equalities Impact Assessment (EqIA)

2.2.4. Public bodies have a duty under the Equality Act 2010 ('EqIA') to have due regard to the need to eliminate discrimination, advance equality of opportunity, and foster good relations between different groups. EqIA is a separate process, but the AoS can support it by identifying distributional effects across population groups.

Health Impact Analysis (HIAn)

2.2.5. An HIAn provides a systematic analysis of how a plan, policy or proposal may impact health across the population, including vulnerable groups. The findings support decision-makers by providing an evidence-based understanding of potential health impacts.

2.2.6. The AoS can provide information on potential health effects, including impacts on communities and quality of life, which can inform or complement a standalone HIAn.

2.3. AoS scoping

Focus of the scoping report

2.3.1. This Scoping Report presents a suggested scope for the AoS. A key procedural requirement of the SEA Regulations is to present this scope for the AoS, so that the designated authorities (Historic England, Natural England and the Environment Agency) can provide timely comment.

2.3.2. A scoping report was previously produced in 2016 to support the production of the 2018 ANPS. This Scoping Report presents an updated evidence base drawing on, and updating, the information originally established for the 2017/2018 ANPS process.

2.3.3. This AoS Scoping Report proposes the appraisal framework for assessing options for delivering additional airport capacity at Heathrow Airport. While it builds on the approach taken in the AoS for the 2018 ANPS, the framework reflects updated legislation, policy, baseline information and methodological best practice.

2.3.4. The Scoping Report focusses on the Northwest runway scheme brought forward by Heathrow Airport Limited (see **Figure 2-2**), as the scheme selected to inform the draft HENPS. Reasonable alternatives will be assessed through the AoS report (see Section 15.2).

2.3.5. **Table 2-1** provides a summary of the scoping activities for the AoS as presented in this report.

Table 2-1: Scoping activities undertaken in this report

Activity	Description	Section of this report
Identify other relevant policies, plans and programmes, and sustainability objectives (in accordance with Schedule 2, paragraphs 1 and 5 of the Environmental Assessment of Plans and Programmes Regulations 2004 (SEA Regulations))	The proposed policy may be influenced in various ways by other plans or programmes, or by external environmental protection objectives such as those laid down in policies or legislation. This activity identifies potential synergies and any inconsistencies and constraints.	Technical Annex and summarised in the Main Report's topic chapters (Chapters 3-13).
Collect baseline information	Baseline information and the predicted future baseline provides the basis for predicting and monitoring environmental effects and helps to identify existing environmental problems which may be exacerbated by the proposed policy.	Technical Annex and summarised in the Main Report's topic chapters (Chapters 3-13).
Identify sustainability issues and problems	Identifying environmental problems is an opportunity to define key issues and focus the AoS objectives.	Main Report's topic chapters (Chapters 3-13).
Develop the sustainability appraisal framework	AoS objectives are a recognised way of considering the environmental effects of a policy, plan or programme and comparing the effects of alternatives. The AoS objectives are derived from environmental objectives which are established in law, policy, or other plans or programmes, and/or from a review of baseline information and environmental problems as identified above. The AoS framework sets out how these will be used for assessment at the next stage, including sources of information.	Main Report Chapter 14.

Scoping themes

2.3.6. The scope is explored and presented under a series of key environmental themes as follows:

- Air Quality;
- Biodiversity;
- Carbon;
- Communities and Quality of Life;
- Economy;
- Historic Environment;
- Landscape;
- Noise;
- Resources and Waste;
- Soil; and
- Water.

2.3.7. These themes are consistent with those used in the previous AoS for the 2018 ANPS. These themes incorporate the 'SEA topics' suggested by Schedule 2(6) of the SEA Regulations.

2.3.8. The discussion of the scoping information for each theme is presented in **Chapters 3 to 13**, and the proposed AoS framework is brought together as a whole in **Chapter 14**. Each proposal within the AoS will be assessed consistently using this framework.

Study areas

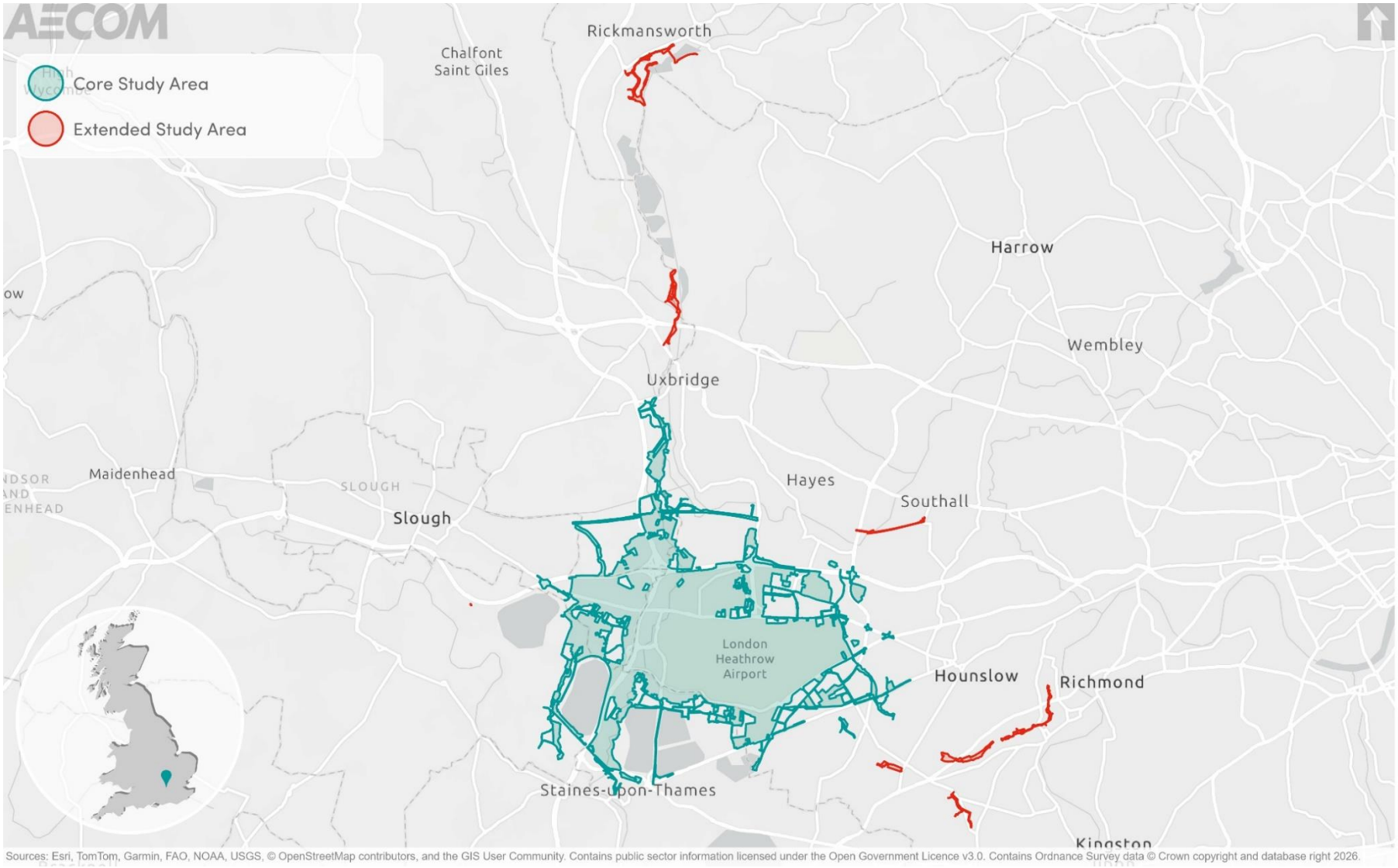
2.3.9. In defining the baseline and identifying potential effects, AoS theme-specific study areas and buffer zones have been applied using best practice guidance and professional judgement. The assessment is structured around a core study area (as shown in **Figure 2-2**), which represents the zone within which direct environmental and socio-economic impacts may arise from the proposed Northwest runway and associated infrastructure.

2.3.10. For certain topics (particularly those relating to water, hydrology and aquatic ecology) an extended study area is also used to capture receptors and pathways associated with downstream and connected watercourses (also shown in **Figure 2-2**).

2.3.11. Core and extended study areas are separate from the additional AoS theme-specific buffer zones that will be applied, where relevant, to capture wider or indirect pathways for potential significant effects. This tiered approach, informed by professional judgement, relevant guidance and the nature of receptors, ensures that the spatial extent of each assessment topic is proportionate to the likely impacts while remaining aligned with the draft HENPS.

2.3.12. In combination, the two study areas comprise the Development Consent Order (DCO) boundary that was submitted to the Planning Inspectorate as part of Heathrow's Environmental Impact Assessment Scoping Report Addendum in September 2025. This boundary, as at the date of submission, reflected the project extents and assumptions at that point of design maturity.

Figure 2-2: Core and extended study areas



3. Air quality

3.1. Focus of theme

3.1.1. This theme focuses on air quality, in particular Air Quality Management Areas (AQMAs), Ultra Low Emission Zones, industry, construction and demolition, and aggregates.

3.1.2. The air quality chapter will focus on the local (Heathrow) and regional (South East) baselines because changes in pollutant concentrations from airport expansion are mainly driven by emissions close to the airport and along surrounding transport routes, while regional transport networks, background pollution levels and wider development patterns across the South East also influence overall air quality conditions.

3.2. Policy context

3.2.1. The policy context for air quality is defined by a well-established framework of international commitments, national legislation and guidance, and regional and local strategies. Key national instruments include the Air Quality Standards Regulations 2010, which set statutory limit values for pollutants, and the National Emission Ceilings Regulations 2018, which implement the UK's international obligations to reduce emissions from major sectors. The Environment Act 2021 introduces legally binding long-term targets for fine particulate matter (PM2.5), including both concentration and population-exposure objectives to be achieved by 2040. Defra's Air Quality Strategy (2023) provides a national framework for local authority action and identifies priority pollutants, sectors and required interventions to improve air quality across England. At the regional level, the London Environment Strategy (supported by the Ultra Low Emission Zone) sets out measures to reduce transport emissions and achieve World Health Organisation-aligned pollutant levels across Greater London.

3.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

3.3. Current and future baseline overview

3.3.1. The majority of the core study area lies within an AQMA, with the Hillingdon AQMA covering the greatest proportion (see **Figure 3-1**). In this AQMA, concentrations of nitrogen dioxide (NO2) remain elevated due to emissions from major strategic roads and extensive airport-related surface access traffic. According to the Hillingdon Air Quality Action Plan, Heathrow Airport is also noted as a key local source of NOx and particulate emissions through aircraft operations, airside vehicles, ground support equipment, and associated industrial and energy-related activities.

3.3.2. Additional pressures arise from construction and demolition works, freight and logistics activity (including significant Heavy Goods Vehicle [HGV] movements) and the handling and transport of materials. While the London-wide Ultra Low Emission Zone (ULEZ) has reduced the prevalence of higher-emitting vehicles, overall conditions continue to reflect the cumulative influence of road transport, airport operations and regional background pollution, leaving sensitive receptors exposed to elevated pollutant levels.

3.3.3. Future air quality conditions in the core study area will be shaped by the balance between growth-related pressures and policy-driven emissions reductions. Increases in airport activity, construction, passenger demand, freight movements and associated surface access trips may raise emissions of NOx and particulate matter in the short to medium term. Over the longer term, national, regional and local measures (including fleet electrification, improved public transport connectivity and strategies to reduce private car use) are expected to support gradual improvements in air quality.

3.3.4. For detailed information, see the **Technical Annex**.

3.4. Key issues

3.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Air Quality AoS theme:

- Existing exceedances of NO2 (and wider NOx) objectives in the Hillingdon AQMA (and other AQMAs present locally), including areas within and adjacent to the core study area, increase the risk that additional emissions from airport-related activity could hinder progress toward statutory compliance;

- Major contributions from road traffic and freight movements (including high volumes of HGVs serving passenger, commercial and logistics functions) create persistent localised pressures on NO2 and particulate concentrations along key surface access routes;
- Airport-related emissions from aircraft operations, ground support equipment and industrial processes represent a significant cumulative source of NOx, PM10, PM2.5 and ultrafine particles, with potential implications for nearby sensitive receptors;
- While the baseline trajectory for air quality in London is improving, driven in part by the implementation and expansion of the ULEZ, there remains a risk that growth in airport-related traffic and operational activity could erode or offset these gains, particularly along surface access corridors and in areas already sensitive to air quality pressures, potentially constraining the achievement of long-term air quality objectives;
- Construction and demolition activity associated with airport development poses a risk of short-term increases in dust and particulate emissions, particularly during large-scale earthworks or multiple simultaneous construction phases; and
- Opportunities exist to support long-term air quality improvements through policies and measures promoting fleet electrification, clean airport operations, enhanced public transport connectivity and sustainable surface access strategies aligned with ULEZ and wider emissions-reduction frameworks.

3.4.2. The key issues are broadly consistent with those in 2018, still focussing on air quality impacts from airport operations and surface access, as well as risks to compliance and health.

3.5. AoS objective

3.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to air quality:

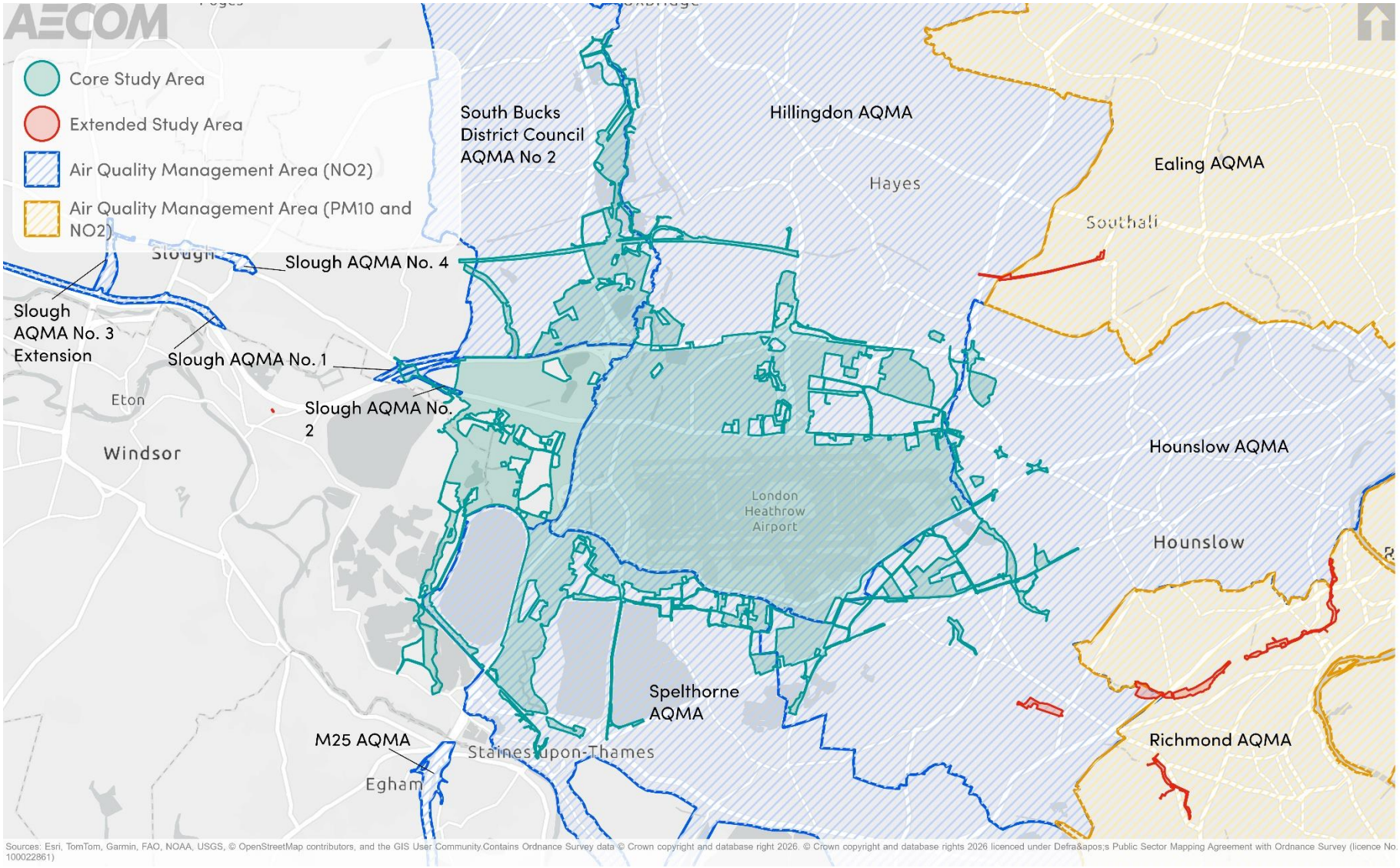
To minimise emissions from airport-related activities within Heathrow's control and influence, and to avoid exacerbating existing air quality issues, in order to support compliance with international, national and local air quality objectives.

3.5.2. This Air Quality objective has been updated rather than carried forward directly from the 2018 ANPS AoS framework.

3.5.3. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …minimise air pollutant emissions arising from activities within the airport's control or influence, including airport operations, construction activities and associated surface access?
- …avoid worsening existing air quality conditions or delaying progress towards compliance with air quality objectives in the Heathrow area?
- …reduce exposure to air pollution for local communities and sites designated for nature conservation, recognising areas already sensitive to air quality impacts?
- …support wider efforts by relevant authorities to improve air quality, without relying on actions outside the airport's control to offset airport-related emissions?

Figure 3-1: Air Quality Management Areas



4. Biodiversity

4.1. Focus of theme

4.1.1. This theme addresses biodiversity, including the full range of internationally, nationally and locally important ecological assets. It covers statutory and non-statutory nature conservation sites, priority habitats and species, and wider ecological networks that support biodiversity value, ecological function and landscape-scale connectivity.

4.1.2. This biodiversity chapter focuses on the local (Heathrow) and regional (South East and London) baselines, reflecting the spatial extent over which ecological receptors may be affected. While direct impacts are likely to occur primarily in and around the airport, consideration of the wider regional context is important to understand the distribution, sensitivity and connectivity of designated and non-designated habitats, and the potential for effects on ecological networks.

4.2. Policy context

4.2.1. Biodiversity is protected through a range of national and local policies. The National Planning Policy Framework (NPPF) (2024) requires the identification, mapping and safeguarding of components of designated biodiversity assets appropriate to their position in the hierarchy. Plans should also promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species.

4.2.2. The Environment Act 2021 sets a series of statutory targets to help improve the natural environment and leave it in a better state for future generations. These targets are focused on four priority areas: air quality, biodiversity, water, and waste. The Act also requires the preparation of Environmental Improvement Plans (EIPs), which are prepared periodically by the Secretary of State and reported on annually, and is anticipated to be updated to ensure biodiversity net gains (BNGs) are secured through Nationally Significant Infrastructure Projects (NSIPs). The Act also makes provision for BNG, requiring measurable improvements in biodiversity, although for NSIPs this is expected to apply from November 2026 and to be delivered by, rather than necessarily secured through, the DCO.

4.2.3. The Conservation of Habitats and Species Regulations 2010 provide statutory protection for international biodiversity sites. Nationally designated sites are protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000. Natural England guidance supports best practice in managing biodiversity impacts. Local planning policies in Hillingdon and neighbouring authorities also set out requirements for the protection of biodiversity assets in their respective areas.

4.2.4. See the **Technical Annex** for further information on plans, policies, and strategies.

4.3. Current and future baseline overview

4.3.1. The core and extended study areas lie in a region that contains several internationally and nationally designated biodiversity assets (see **Figure 4-1** and **Figure 4-2**), as well as locally important non-statutory sites (see **Figure 4-3**). A 15 km search identified nine internationally designated sites, some of which host large populations of bird species presenting a bird strike risk. Within 5 km of the core and extended study area there are, Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and 39 Local Nature Reserves (LNR) (including five LNRs within the study areas). It is worth noting that the study areas overlap with SSSI Impact Risk Zones (IRZs) for development types expected to be brought forward by the draft HENPS.

4.3.2. The study areas are also overlain and surrounded by National Habitat Network areas and priority habitats (see **Figure 4-4** and **Figure 4-5**). Several sites of importance for nature conservation (SINCs) and one site of ancient woodland are located within the study areas, while many others of these sites are also located within 5 km.

4.3.3. These search distances reflect standard practice for assessing ecological effects of airport-related development: a 30 km radius is used to capture Special Areas of Conservation (SAC) protected for their bat populations; a 15 km radius is used to capture internationally designated sites that may support wide-ranging bird species relevant to bird-strike and functional connectivity, while a 5 km radius is appropriate for identifying nationally and locally designated sites where ecological pathways operate over shorter distances.

4.3.4. It is recognised that Natural England has advised the accompanying draft HENPS Habitats Regulations Assessment (HRA) to adopt a source-pathway-receptor framework rather than relying solely on a fixed-distance study area. The AoS, as a strategic-level assessment, appropriately uses broader study areas to ensure that relevant environmental receptors are captured at this early, high-level stage. Should the HRA identify any additional receptors or pathways not captured by a fixed-radius search, these will be reviewed for cross-consistency with this assessment at the next stage of the AoS.

4.3.5. The future baseline will be shaped by wider development activity at and around Heathrow that is expected to come forward independently of any expansion proposals, as well as by climate change. Climate change is likely to alter habitats and ecosystems, shift suitable climate conditions, change species distributions and increase the frequency of extreme weather events that may disrupt wildlife. Together, these pressures may place additional stress on biodiversity assets and highlight the need for ongoing ecological management.

4.3.6. For statutory internationally and nationally designated sites it is assumed that their condition will be maintained in line with existing policy protections. Broader application of biodiversity net gain requirements may also lead to habitat improvements in the wider area over time, independent of any expansion proposal.

4.3.7. For detailed information, see the **Technical Annex**.

4.4. Key issues

4.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Biodiversity AoS theme:

- There are nine internationally designated biodiversity sites within 15 km of the core and extended study areas designated for their bird populations (Burnham Beeches SAC; Richmond Park SAC; Chiltern Beechwoods SAC; South West London Waterbodies Special Protection Area (SPA) and Ramsar; Thames Basin Heaths SPA; Thursley Ash, Pirbright and Chobham SAC; Wimbledon Common SAC; and Windsor Forest and Great Park SAC). Additionally, there is one SAC located within 30 km of the core and extended study areas (Mole Gap to Reigate Escarpment SAC) which is designated for its bat populations. The 2018 Habitats Regulation Assessment (HRA) highlighted that air quality change had the potential to cause likely significant effects on all of the international sites mentioned above;

- South West London Waterbodies SPA and Ramsar is located closest to the core study area. The 2018 HRA concluded that the site faces the greatest number of potential adverse significant effects, including direct habitat loss, noise and disturbance, hydrological change, air quality change and operation/management and mitigation (mortality). It is anticipated that the same key issues outlined in the 2018 HRA will be carried forward into the updated HRA;

- There are 25 SSSIs, two NNRs and 34 LNRs within 5 km of the core and extended study areas. These designations are important for a range of nationally important habitats, flora and fauna;

- Both the internationally and nationally designated sites for biodiversity host large populations of bird species. As such, any development that disrupts the behaviour of these birds or places a greater number of aircraft in closer proximity to them could increase the risk of bird strikes;

- There are parts of the study areas that overlap with SSSI Impact Risk Zones (IRZs) for development types expected to be brought forward by the draft HENPS;

- There are five LNRs, several SINCs, and one site of ancient woodland located within the study areas;

- There are a number of Biodiversity Action Plan Priority Habitats within the study areas and their surroundings, including deciduous woodland, lowland meadows, dry acid grassland, floodplain grazing marsh, traditional orchards and good quality semi improved grassland; and

- Development of a new runway at Heathrow could impact habitat connectivity and ecosystem service provision from the habitats mentioned above. Changes in land use also reduces the amount of space available for these habitats to provide suitable locations for protected and priority species.

4.4.2. The key issues are broadly consistent with those previously identified for the separate 2018 AoS, still focusing on designated sites, priority habitats, woodland, connectivity and ecosystem services. The main new elements include the impacts on SSSI IRZs and the high prevalence of bird species and associated bird strike risk.

4.5. AoS objective

4.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objectives in relation to biodiversity:

1. **To protect and enhance designated sites for nature conservation.**
2. **To conserve and enhance undesignated habitats, species, valuable ecological networks and ecosystem functionality, and support the delivery of Biodiversity Net Gain.**

4.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …affect the internationally designated, nationally and locally designated biodiversity sites?
- …lead to adverse significant effects on the internationally designated South West London Waterbodies SPA and Ramsar?
- …conserve and enhance undesignated habitats, priority habitats and species, internationally and nationally protected species, and the ecological networks that support them?
- … has a measurably positive impact on the delivery of the London Local Nature Recovery Strategy?
- … increase the exposure of wildlife to transport noise, air pollution, and water pollution?
- …result in changes to water quantity (including abstraction, flow, drainage and hydrological regimes) that could affect water-dependent habitats and species?
- … increase the occurrence of bird strikes in relation to aviation activity surrounding Heathrow?

Figure 4-1: International biodiversity sites

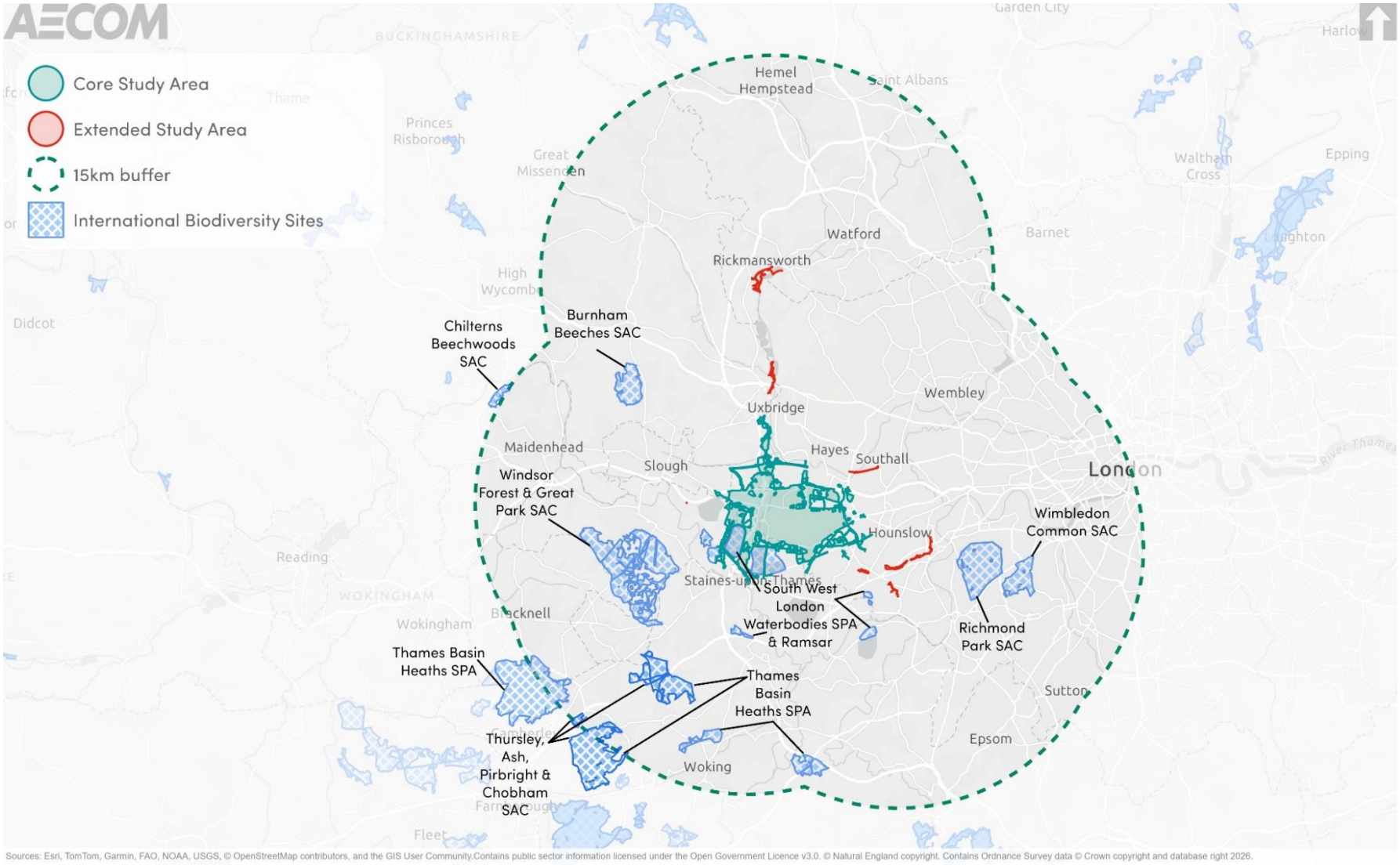


Figure 4-2: National biodiversity designations

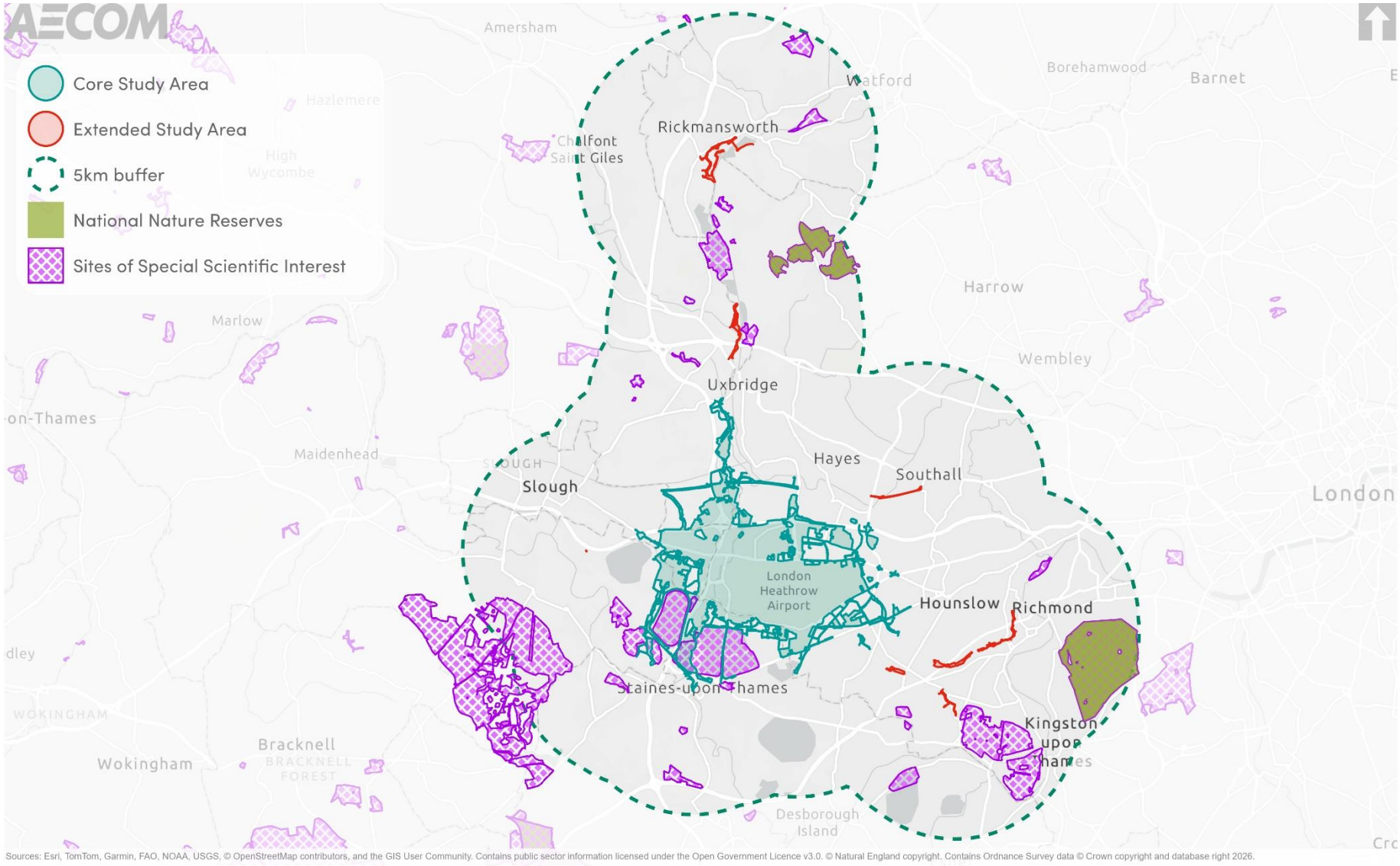


Figure 4-3: Local Nature Reserves and London Sites of Importance for Nature Conservation

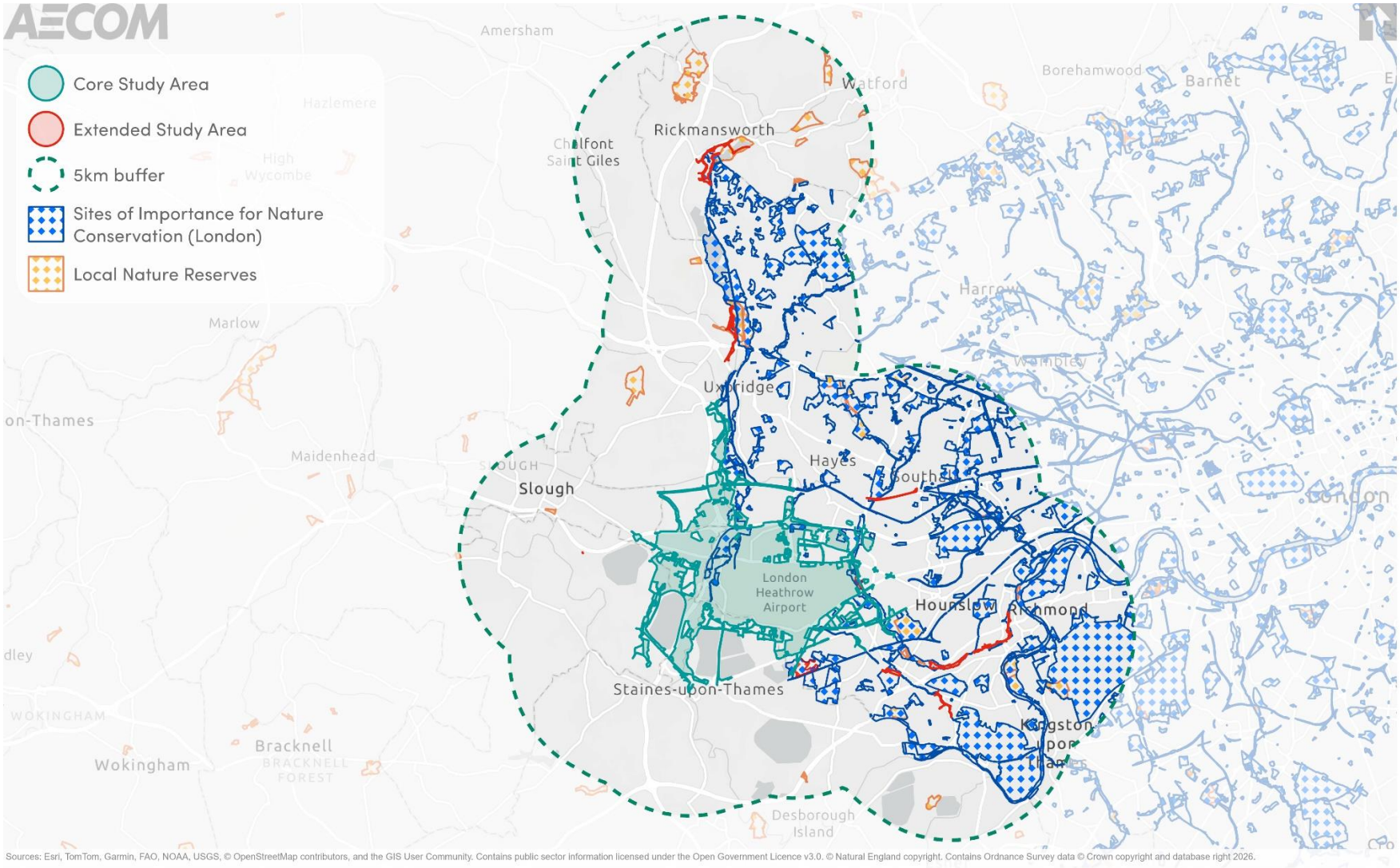


Figure 4-4: Ancient woodland and Biodiversity Action Plan habitats

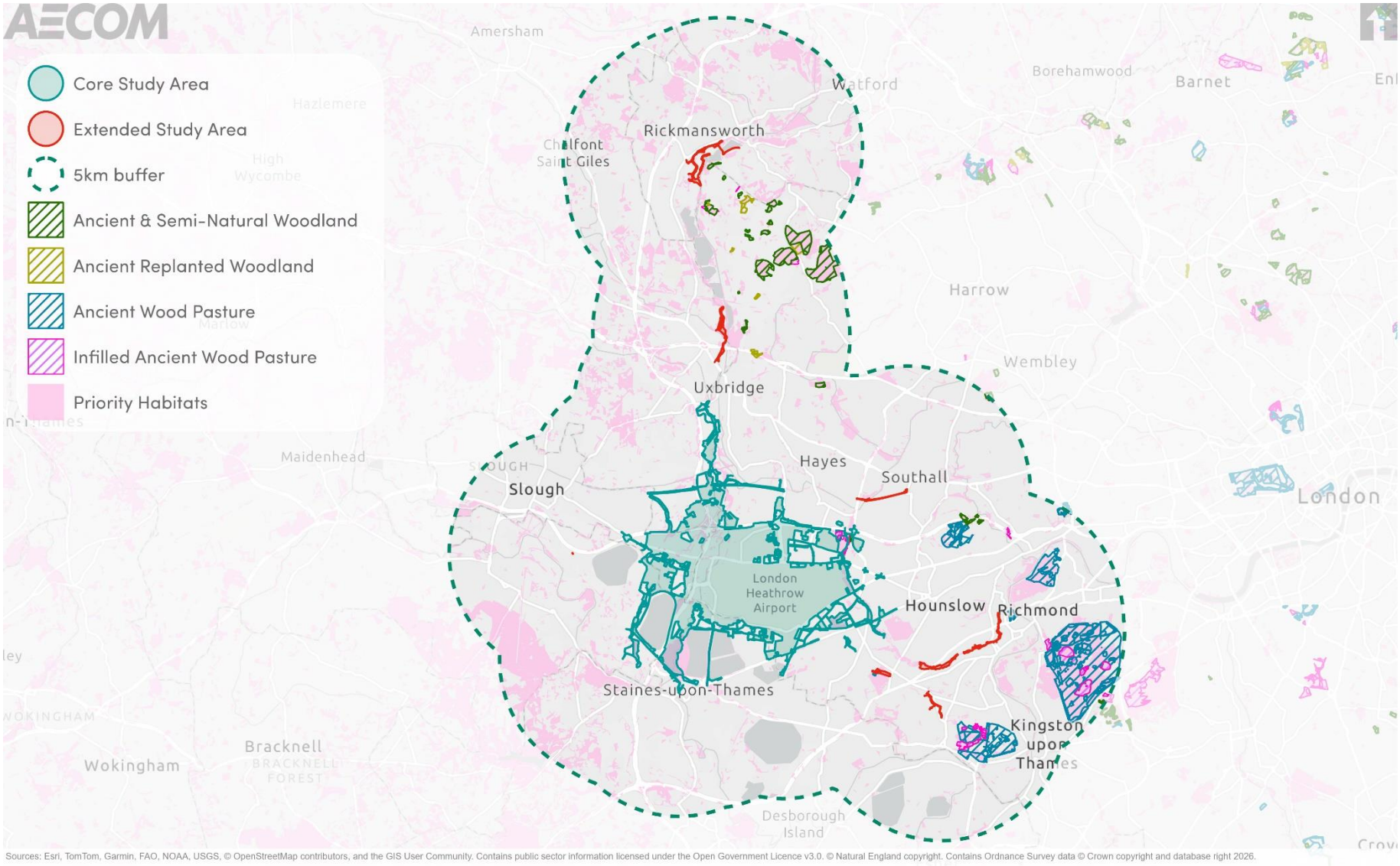
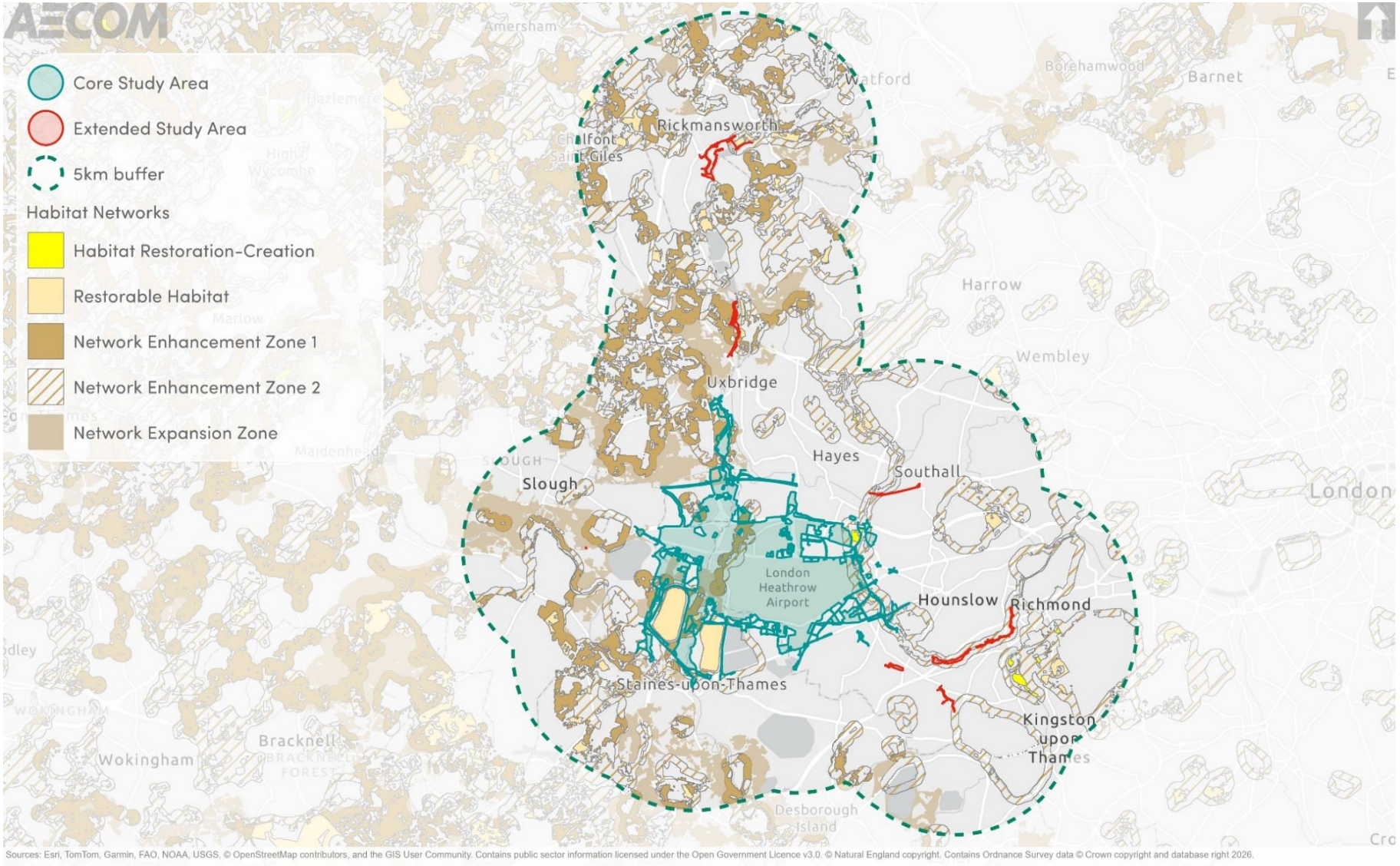


Figure 4-5: National Habitat Network map



5. Climate change

5.1. Focus of theme

5.1.1. This theme focuses on carbon dioxide (CO2) and other greenhouse gas (GHG) emissions and the associated climate change mitigation considerations. The chapter also outlines existing flood sources in proximity to the core and expanded study areas, providing the basis for climate change adaptation considerations.

5.1.2. This climate change chapter focuses on the local (Heathrow), regional (South East and London), and National (England) baseline because climate-related risks (such as flooding, extreme heat and urban heat island effects) operate at wider geographic scales that extend beyond the immediate airport area, and because national emissions trends and statutory climate targets form the relevant context.

5.2. Policy context

5.2.1. The draft HENPS will be required to be in general conformity with the National Planning Policy Framework (NPPF) (2024), which sets policy around proactive planning to both mitigate and adapt to climate change. Development will be expected to improve the resilience of communities and infrastructure to climate change impacts and support the move to a low carbon economy. Local planning policies in Hillingdon, Hounslow, Slough and other neighbouring authorities also set out policies for decarbonisation and reducing the prevalence and intensity of flood events.

5.2.2. Climate change policy in the UK is underpinned by the Climate Change Act 2008 (as amended), which commits the UK to achieving net zero greenhouse gas emissions by 2050, supported by a series of legally binding carbon budgets to reduce emissions across all sectors. Carbon Budgets 1-5 did not formally include GHG emissions from international aviation, instead leaving ‘headroom’ for an assumed value. However, the UK Government has committed to include emissions from the UK’s share of international aviation within the Sixth Carbon Budget (2033-2037) and future carbon budgets.

5.2.3. Flightpath to the Future provides wider strategic context for the long-term development of the UK aviation sector; however, the Jet Zero Strategy now forms the primary Government framework for aviation decarbonisation. The Jet Zero Strategy sets out the pathway to reach net-zero aviation by 2050, including the deployment of sustainable aviation fuels (SAF), the development of zero-emission aircraft, airspace modernisation, efficiency improvements and wider sector-level measures to reduce emissions.

5.2.4. See the **Technical Annex** for further information on plans, policies, and strategies.

5.3. Current and future baseline overview

5.3.1. The UK has committed to achieving net zero greenhouse gas emissions by 2050, with UK-wide, national and local climate emergency declarations reinforcing the need for significant emissions reductions. Transport remained the UK's largest emitting sector in 2025. Regarding national airport emissions, both Gatwick and Luton Airports are progressing major capacity-enhancement schemes (although Gatwick's is subject to a legal challenge, as of June 2026). Together, these developments are expected to influence the emissions landscape of UK aviation.

5.3.2. In relation to the AoS, aviation emissions are assessed at the national level; however, within the core study area Heathrow sits within the London and South East regions, which have experienced long-term emissions reductions consistent with national trends. Most of Heathrow's emissions arise from activities it does not directly control (primarily surface access, supply chains and aircraft operations (Scope 3)). While emissions have risen as activity recovers post-pandemic, Heathrow's emissions remain below 2019 levels. The airport continues to implement a range of decarbonisation measures, including renewable energy use, on-site generation, fleet electrification and support for sustainable aviation fuels. Within the core study area, Heathrow Airport suffers from the Urban Heat Island effect, which can influence building cooling demand, operational energy use and wider environmental quality. This localised temperature increase can have implications for energy demand and the local environment. The core and extended study areas are also affected by fluvial, surface water and groundwater flood risks due to nearby watercourses, flat topography and local geology (see **Figure 5-1** and **Figure 5-2**).

5.3.3. The future baseline will be shaped by wider climate change and by projected trends in aviation activity in the absence of Heathrow expansion. The UK Aviation Forecasts (2017) indicate that, under a 'no-new-runway' scenario, airport-related CO2 emissions are expected to increase slightly by 2050. These forecasts are currently being updated, and the latest analysis will be used to inform the main AoS report and published alongside the draft HENPS. UK Climate Projections indicate that by the 2040s, London is likely to experience warmer conditions, drier summers and wetter winters, increasing risks to flooding, water resources, biodiversity, human health, heritage assets and infrastructure resilience.

5.3.4. For detailed information, see the **Technical Annex**.

Key issues

5.3.5. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Climate Change AoS theme:

- An increase in carbon emissions linked to increase in aviation demand and its associated activities;
- Both Gatwick and Luton Airports are progressing major capacity-enhancement schemes. Together, these developments will have wider implications for total greenhouse gas emissions from UK airports;
- Emissions associated with construction, operation (including ground transportation) and maintenance;
- Emissions from international flights departing from the UK are predicted to increase, although not formally included in UK carbon budgets 1-5, the Government has committed to including international aviation emissions from carbon budget 6 onwards;
- Due to its extensive hard standing and built infrastructure, Heathrow Airport is at risk from the Urban Heat Island effect. This can cause localised temperature increases relative to surrounding areas with implications for energy demand and local environmental conditions;
- The Heathrow area is at risk from fluvial flooding associated with water bodies within the River Colne and River Crane catchments alongside widespread surface water flooding driven by flat topography and the built environment. Groundwater flooding is also of concern due to shallow groundwater levels and altered flow pathways from historic mineral extraction and development in the surrounding area.

5.3.6. The key issues are largely the same as those previously identified for the separate 2018 AoS, still covering construction, operation, maintenance, and rising emissions from departing flights included from carbon budget 6 onwards. The main new elements included are associated with flood risk, emissions from Luton and Gatwick Airports' expansion and the implications associated with the Urban Heat Island effect.

5.4. AoS objective

5.4.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to climate change:

1. **To minimise carbon emissions in airport construction and operation, including emissions from flights.**
2. **To minimise risks to development from all sources of flooding and ensure resilience to climate change.**

5.4.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …be consistent with overall carbon budget requirements?
- …minimise carbon emissions associated with surface transportation?
- …reduce fluvial, surface and groundwater flood risk on and off site?
- …increase the resilience of the area to the likely impacts of climate change, including through the incorporation of nature-based solutions?
- …affect the intensity and occurrence of the Urban Heat Island effect at Heathrow Airport?

Figure 5-1: Fluvial flood risk

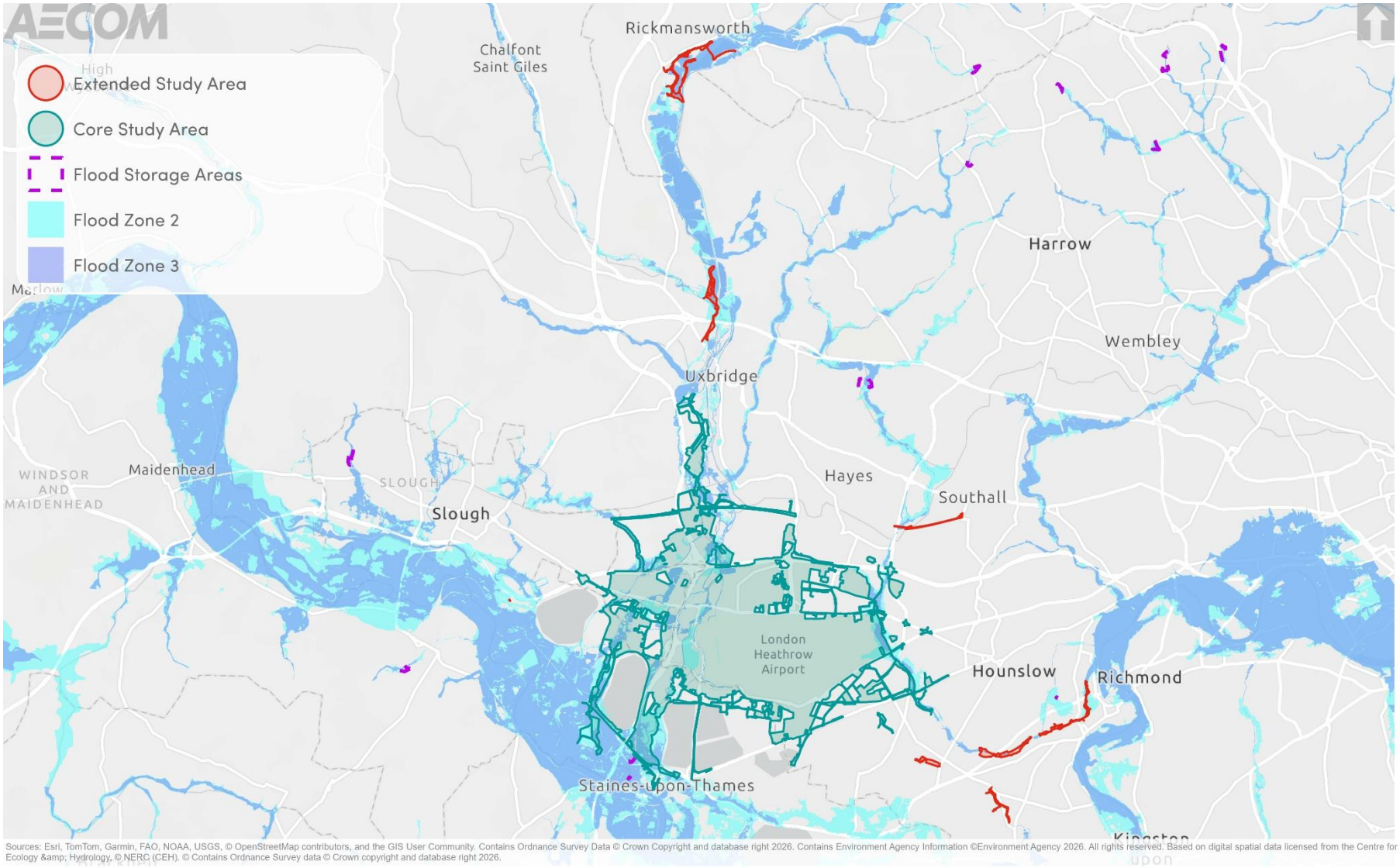
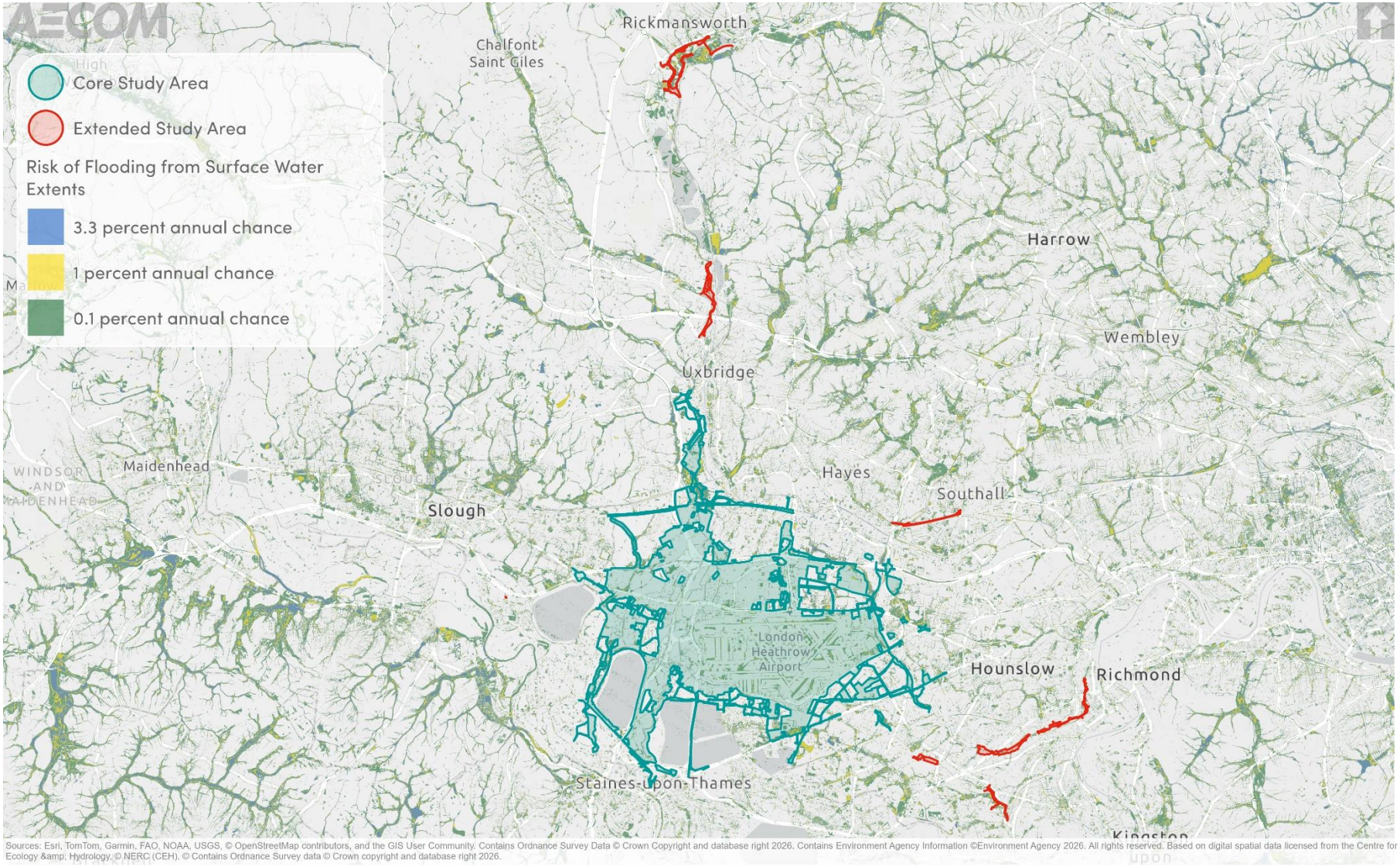


Figure 5-2: Surface water flood risk



6. Communities and quality of life

6.1. Focus of theme

6.1.1. This theme considers the potential effects of Heathrow expansion on communities and quality of life, including impacts on housing, community identity, access to facilities, health and wellbeing, and vulnerability to environmental change.

6.1.2. The communities and quality of life chapter will focus on the local (Heathrow) and regional (South East) baselines because the social, health and wellbeing effects of airport expansion are experienced most directly by communities around Heathrow, while the South East provides the wider socio-economic and demographic context relevant to understanding regional patterns of population, housing, employment and accessibility.

6.2. Policy context

6.2.1. Key policy relevant to Communities and Quality of Life includes the NPPF, which emphasises the creation of healthy, inclusive and safe places; the Planning Act 2008, which requires consideration of population effects, health and equalities in National Policy Statements; the Equality Act 2010, which sets duties relating to protected characteristics; and the Health and Social Care Act 2012, which highlights the role of planning in supporting public health. The Environmental Impact Assessment (EIA) Regulations also require the assessment of likely significant effects on population and human health at the project level. Regional and local policies such as the London Plan (2021) and Local Plans for Hillingdon, Hounslow, Slough and Spelthorne also prioritise meeting housing need, safeguarding community facilities, improving environmental quality and reducing health inequalities.

6.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

6.3. Current and future baseline overview

6.3.1. The current baseline around Heathrow is characterised by a growing population, long-established communities with strong local identity, and high levels of housing need across both London and neighbouring authorities (ONS data). Several settlements (most notably Harmondsworth, Longford and parts of Sipson) lie within the proposed expansion area, alongside a range of community facilities, schools, businesses, heritage assets and green spaces. Communities experience mixed health outcomes, with generally improving self-reported health but there remain pockets of disadvantage. Environmental conditions such as aviation noise, road traffic noise, localised air quality issues, congestion and limited access to quiet green space continue to influence everyday living conditions. Index of Multiple Deprivation (IMD) 2025 data shows that many Lower Super Output Areas (small statistical geographic areas used to report census and deprivation data) around Heathrow fall within the 50% most deprived nationally for the Living Environment domain, with some variation in health-related deprivation across the wider area (see **Figure 6-1** and **Figure 6-2**).

6.3.2. Future population growth and housing demand across west London and adjoining authorities are expected to continue, placing sustained pressure on local services, infrastructure and affordability. Environmental conditions such as noise, congestion and air quality are expected to remain broadly similar, with any improvements likely to be incremental. Patterns of deprivation across the Living Environment (which considers housing quality, air quality and access to green space) and Health (which reflects levels of morbidity, disability and premature mortality) domains are also expected to remain relatively stable in the short to medium term.

6.3.3. For detailed information, see the **Technical Annex**.

6.4. Key issues

6.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Communities and Quality of Life AoS theme:

- Airport expansion has the potential to displace established residential communities, including the villages of Harmondsworth, Longford and parts of Sipson, which would significantly affect local identity, cohesion and continuity of place;
- The removal of existing homes would occur in an area already characterised by high housing need and constrained supply, which may exacerbate affordability pressures and increase community sensitivity to displacement;

- Expansion may lead to the loss or relocation of important community facilities and services, such as schools, businesses, heritage assets and waste management infrastructure, which could affect day-to-day accessibility for local residents;
- Communities surrounding Heathrow already experience several long-standing environmental pressures, and any additional noise, air quality, congestion or access-related changes may influence health and wellbeing outcomes;
- The presence of vulnerable or disadvantaged social groups in the communities surrounding Heathrow (including children, older people, low-income households, minority ethnic communities and residents experiencing multiple deprivation) means that any displacement, severance, environmental change or pressure on local services associated with expansion may have disproportionate effects on these populations;
- The permanent loss of green spaces such as Harmondsworth Moor and other recreational areas would reduce access to natural and quiet open space, which plays an important role in supporting physical and mental wellbeing;
- Changes to transport infrastructure and traffic patterns associated with expansion may increase physical or perceptual severance between communities, affecting connectivity, access to services and the ease with which residents move around the local area; and
- Airport expansion also has the potential to bring some community benefits, including increased employment opportunities during construction and operation, strengthened local economic activity, and enhanced international connectivity.

6.4.2. The key issues remain broadly aligned with the separate 2018 AoS, sharing themes of housing loss, community disruption and pressure on local services.

6.5. AoS objective

6.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objectives in relation to communities and quality of life:

1. **To avoid or minimise negative effects on community viability, including housing, facilities and indirect effects.**
2. **To avoid or minimise disproportionate impacts on any social group.**

3. To maintain and where possible improve the quality of life for local residents and the wider population.

6.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …lead to a loss of housing and community facilities?
- …lead to increasing demand for housing and community facilities?
- …lead to indirect effects on community viability?
- …minimise disproportionate negative effects on particular locations, users or vulnerable groups?
- …help to maintain and improve quality of life?
- …lead to the loss of publicly accessible greenspace or reduce access to recreational areas?
- …result in physical or perceptual severance that affects community connectivity, access to services or ease of movement?
- …create opportunities to enhance local public realm, such as improved streetscapes, safer walking routes, or more attractive community spaces?

Figure 6-1: IMD 2025 – living environment domain

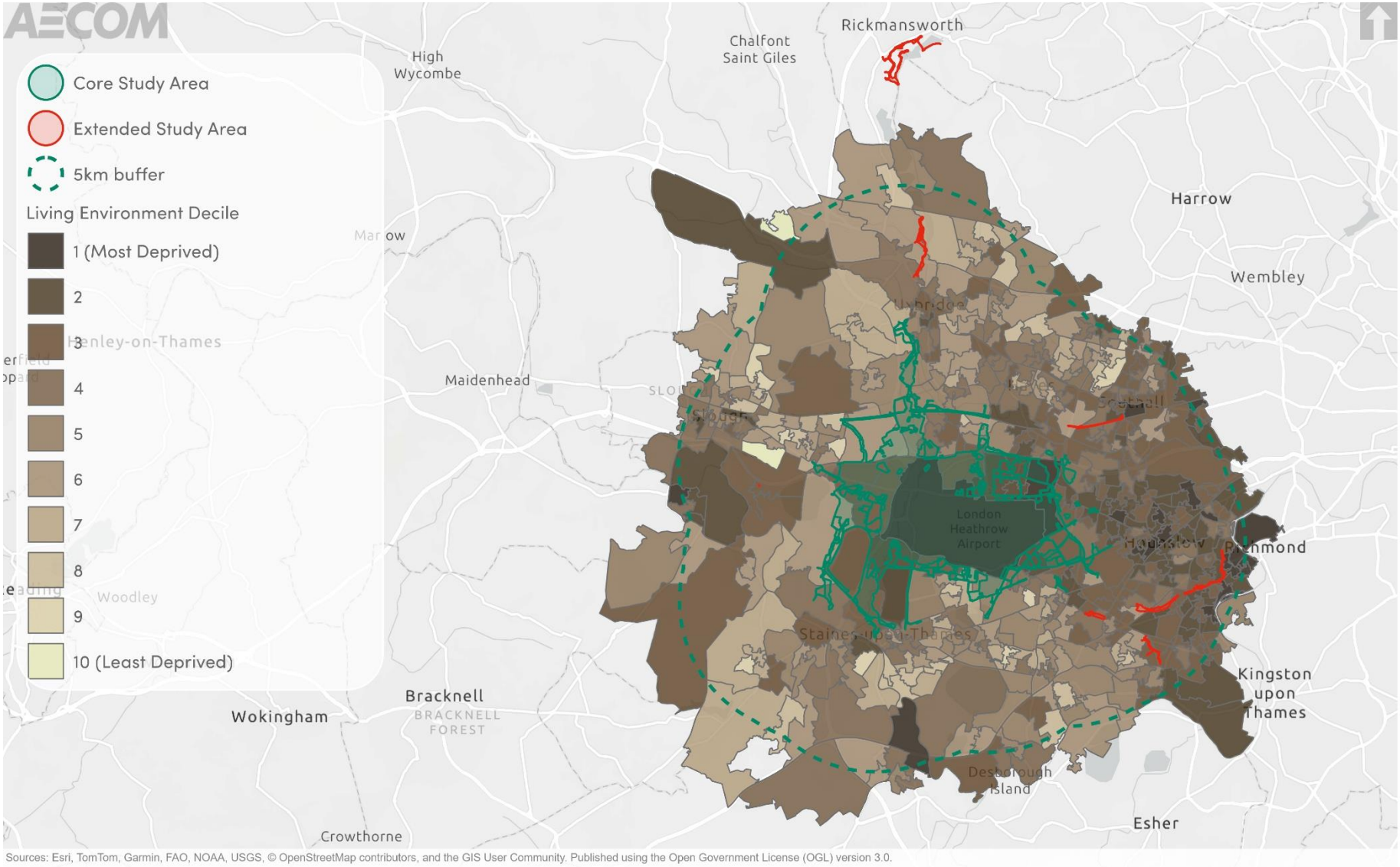
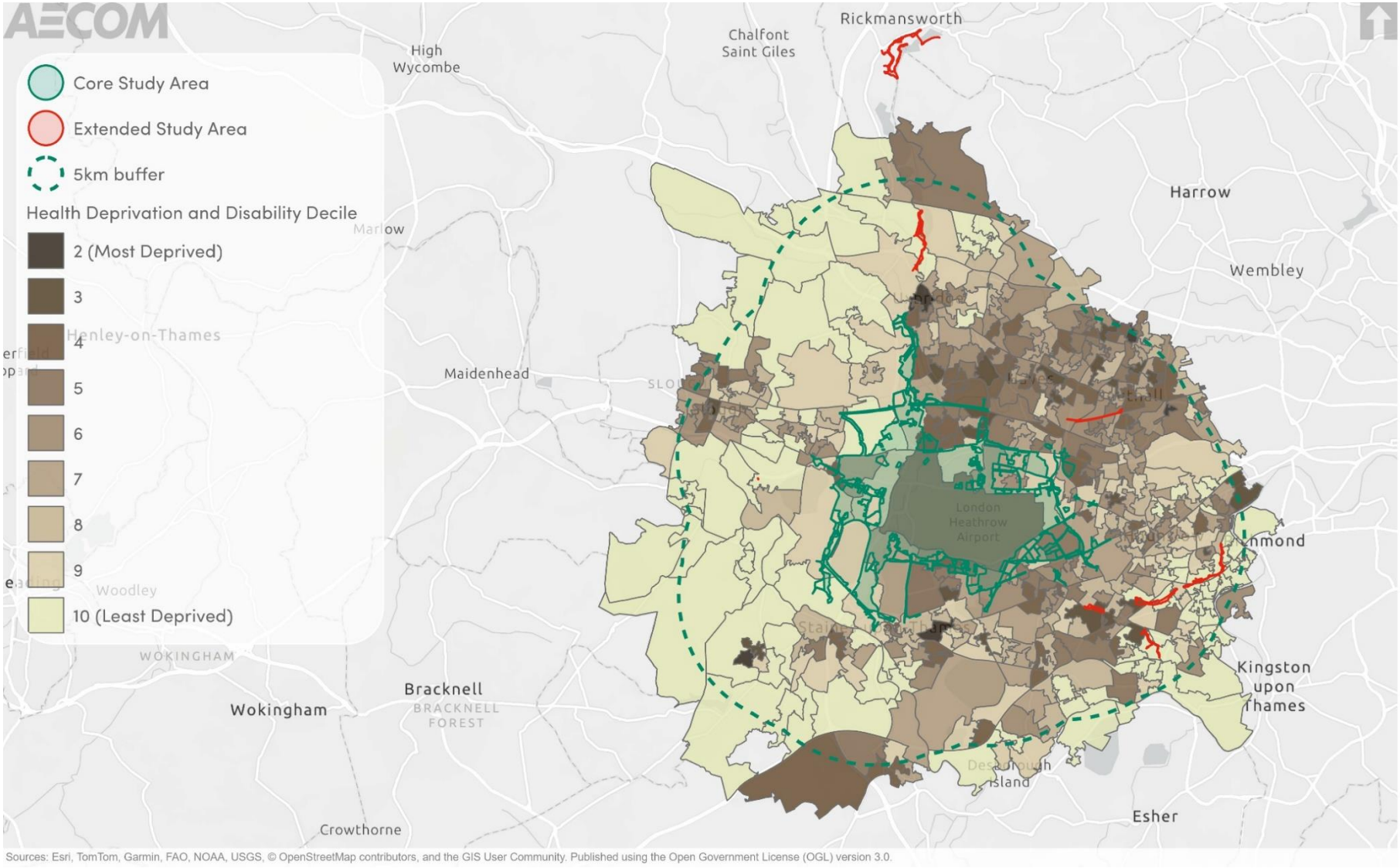


Figure 6-2: IMD 2025 – health deprivation and disability domain



7. Economy

7.1. Focus of theme

7.1.1. This theme focuses the economic baseline relevant to Heathrow Airport, including tourism, employment, unemployment, and patterns of deprivation that together shape the socio-economic context for potential airport expansion.

7.1.2. The economy chapter will focus on the local (Heathrow), regional (South East), and national (England) baselines because airport-related economic effects operate across multiple scales: locally through employment, skills and supply-chain activity; regionally through wider labour markets, business networks and productivity; and nationally through trade, connectivity and contributions to economic growth.

7.2. Policy context

7.2.1. This theme is informed by a range of national and regional policy frameworks that shape expectations for economic growth, connectivity, and the distribution of socio-economic benefits. Key examples include the Aviation Policy Framework, which highlights aviation's role in supporting the UK economy; the Jet Zero Strategy, which sets out the sector's pathway for decarbonisation while maintaining economic competitiveness; and the NPPF, which promotes productivity, employment growth, and well-functioning local economies. Regional and local strategies, such as the London Plan and economic development plans of Hillingdon and neighbouring authorities, also guide how airport-related economic activity aligns with wider priorities for jobs, infrastructure, and sustainable growth.

7.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

7.3. Current and future baseline overview

7.3.1. The current economic baseline reflects Heathrow's substantial role in the national, regional, and local economy. A report from Oxford Economics notes that Heathrow supports large volumes of international travel, including 83.9 million passengers in 2024, of which 94% were international. It acts as a major employment hub, generating an estimated £6.36 billion Gross Value Added (GVA) and supporting over 83,000 direct jobs, with notable supply-chain effects across the South East. However, the surrounding area also experiences socio-economic challenges, including rising unemployment, skills deprivation, and income-related vulnerability (see **Figure 7-1**, **Figure 7-2,** and **Figure 7-3**).

7.3.2. The future baseline assumes that, even without Heathrow expansion, demand for international connectivity remains strong, with London's airports expected to reach full capacity by the mid-2030s. This work is currently being updated and will be used to inform the main AoS report and published alongside the draft HENPS. Economic activity around Heathrow is likely to remain closely tied to aviation-related activity, although challenges such as local unemployment and skills gaps are expected to persist.

7.3.3. Nationally, the approval of expansions at Luton and Gatwick Airports introduces new competitive dynamics, increasing aviation capacity elsewhere in the South East and potentially influencing future investment patterns, employment opportunities, and route distribution.

7.3.4. For detailed information, see the **Technical Annex**.

7.4. Key issues

7.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Economy AoS theme:

- Heathrow already supports substantial economic activity, but local unemployment and income deprivation persist, indicating that economic benefits are not evenly distributed and may require targeted interventions if future expansion is to deliver inclusive growth;
- Strong and sustained demand for international connectivity, highlights a potential constraint on future economic growth unless additional capacity is provided;
- Expansion schemes at Luton and Gatwick Airports, which will expand capacity and generate significant employment and economic output at both airports, introduces new competitive dynamics that may influence how future aviation demand, investment, and airline services are shared across the South East;
- Continued growth in aviation-related activity may increase pressure on housing, transport, and local services, particularly if employment growth attracts additional workers to the area; and
- Broader economic and policy drivers (including decarbonisation commitments under the Jet Zero Strategy) create a need to ensure that any future economic growth associated with Heathrow is delivered in a low-carbon and resource-efficient manner, balancing economic opportunity with environmental constraints.

7.4.2. The key issues remain broadly consistent with the separate 2018 AoS's focus on national and local economic growth, productivity and employment. The main new elements include competitive pressures from Luton and Gatwick Airports' approved expansions.

7.5. AoS objective

7.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation economy:

1. **To maximise economic benefits and to support the competitiveness of the UK economy.**
2. **To promote employment and economic growth in the local area and surrounding region**

7.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …enhance economic growth?
- …contribute to sustainable growth in employment?
- …support the productivity of the UK economy?
- …deliver inclusive economic benefits for local communities?
- …incorporate accessibility improvements, particularly with key local employment centres and areas of high unemployment?
- …support growth and diversification of the local economy?

Figure 7-1: Income IMD domain

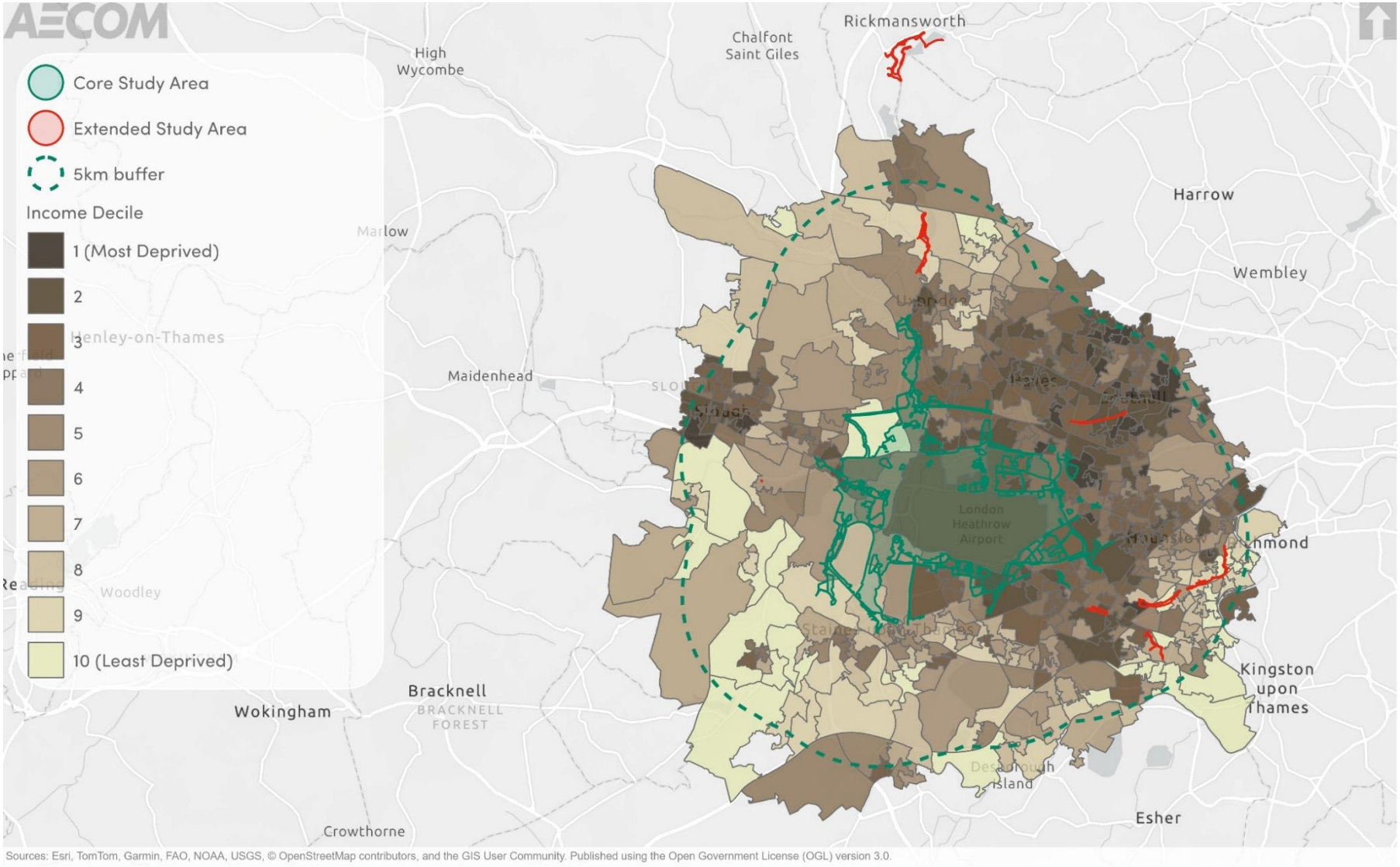


Figure 7-2: Employment IMD domain

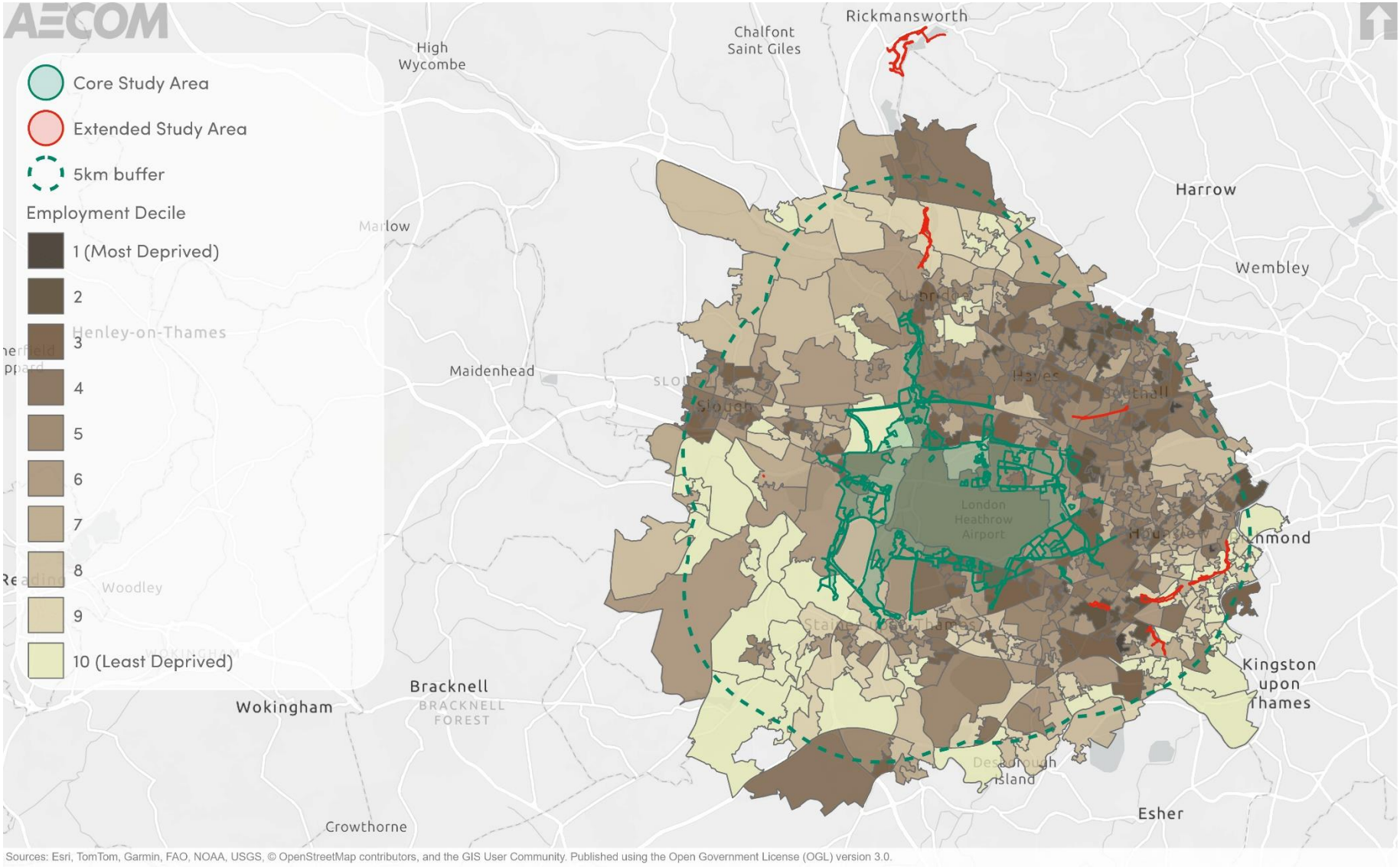
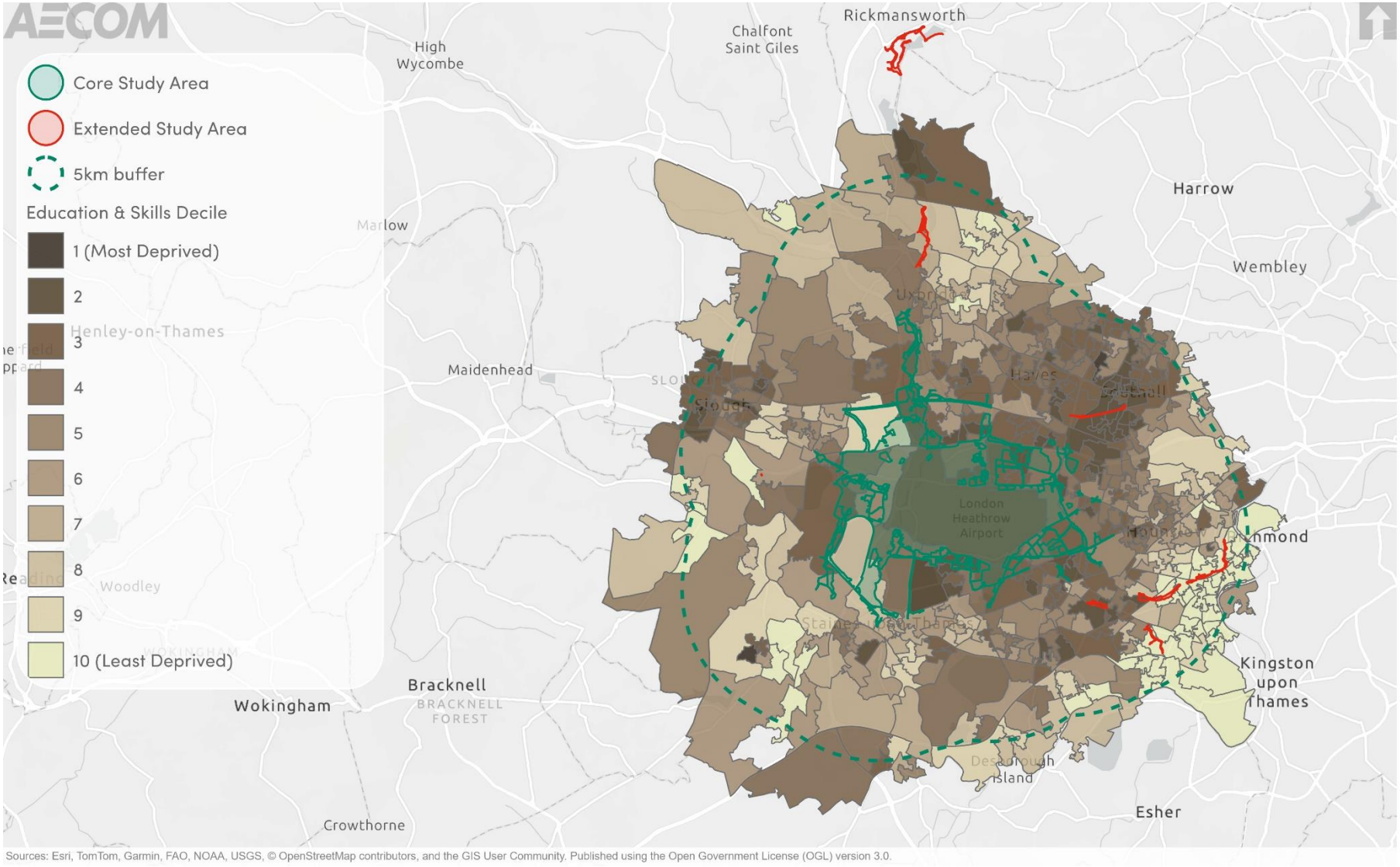


Figure 7-3: Education IMD domain



8. Historic environment

8.1. Focus of theme

8.1.1. This theme focuses on the historic environment, including designated heritage assets (such as listed buildings, scheduled monuments, registered parks and gardens, and conservation areas), non-designated heritage assets, and archaeological resources.

8.1.2. This historic environment chapter focuses on the local airport (Heathrow) and regional (South East) baseline, recognising that effects on heritage assets may arise both within the immediate vicinity of the airport and beyond. While impacts on the physical fabric of heritage assets are often localised, effects on setting (including those arising from changes to land use, watercourse diversions, surface access infrastructure, and aircraft noise and flight paths) may extend over a wider area.

8.2. Policy context

8.2.1. The historic environment is protected through a range of national and local policy and statutory instruments. The NPPF requires conserving heritage assets in a manner appropriate to their significance, while also recognising the desirability of sustaining and enhancing that significance and, where appropriate, putting heritage assets to viable uses consistent with their conservation.

8.2.2. Statutory protection is provided through the Planning (Listed Buildings and Conservation Areas) Act 1990 for listed building and conservation areas, and through the Ancient Monuments and Archaeological Areas Act 1979 for scheduled monuments. Historic England guidance supports best practice in managing heritage impacts, including identification of opportunities for enhancement. Local planning policies in Hillingdon and neighbouring authorities also set out requirements for safeguarding heritage assets.

8.2.3. Collectively, this policy and statutory framework highlights the importance of protecting the historic environment while recognising its potential to contribute positively to sustainable development and place-making.

8.2.4. See the **Technical Annex** for further information on plans, policies, and strategies.

8.3. Current and future baseline overview

8.3.1. The core study area contains a rich and highly sensitive historic environment, including one World Heritage Site within 10 km (Kew Gardens, see **Figure 8-1**). Within 5 km of the core study area there are 2,769 listed buildings (including 40 Grade I), 29 scheduled monuments, and 25 registered parks and gardens (see **Figure 8-2** and **Figure 8-3**). 16 conservation areas lie within 3 km, alongside numerous locally listed heritage assets across Hillingdon and neighbouring authorities. The airport footprint (and much of the surrounding land included in the core study area) falls within an Archaeological Priority Zone with evidence of extensive prehistoric, Roman, and Saxon activity. Historic England has previously advised that expansion (particularly a Northwest Runway) could result in potential loss or harm to designated heritage assets, including conservation areas and listed buildings.

8.3.2. The future baseline will be shaped by wider development activity around Heathrow (excluding any expansion proposals) and by climate change. Climate change is expected to increase extreme weather, rainfall intensity and temperature fluctuations, which may accelerate material decay, affect buried archaeological deposits and alter the setting of heritage assets. These pressures mean that heritage features are likely to face increasing vulnerability over time, requiring ongoing management.

8.3.3. For detailed information, see the **Technical Annex**.

8.4. Key issues

8.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Historic Environment AoS theme:

- Kew Gardens World Heritage Site is within 10 km of the core study area; the potential expansion, therefore, has the potential for adverse effects on the wider setting of this international designation;
- There is a high concentration of nationally designated heritage assets within 5 km of Heathrow, including listed buildings, scheduled monuments, and registered parks and gardens, which are sensitive to changes in setting and character;
- Multiple conservation areas and locally listed heritage assets are located close to the airport, and these could be adversely affected by increased development pressure, changes in traffic patterns, and visual or noise impacts;

- The core study area lies within an Archaeological Priority Area, indicating a high potential for buried archaeological remains that could be disturbed or lost during construction; and
- Heritage assets in the area face cumulative pressures from both airport expansion and associated infrastructure construction, further development pressure in the wider airport area and climate change, which together increase the risk of vacancy, deterioration, and loss of significance.

8.4.2. The key issues are broadly the same as the separate 2018 AoS in highlighting risks to designated and non-designated heritage assets, their settings, and buried archaeology.

8.5. AoS objective

8.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to Historic Environment:

1. **To conserve and where possible enhance the historic environment including buildings, structures, townscapes and landscapes and archaeological remains.**

8.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …affect the significance of internationally and nationally designated heritage assets and their settings?
- …affect the significance of non-designated heritage assets and their settings?
- … conserve and, where possible, enhance the historic environment including landscapes, townscapes, buildings, structures, and archaeological remains by supporting high-quality design and sensitive integration with local character?
- …harm the significance of heritage assets (for example from the generation of noise, pollutants and visual intrusion)?
- …promote high-quality design that reinforces local character?
- …increase the risk to the continued viable use of heritage assets with consequent loss of their significance?
- …ensure that, where heritage assets are affected by development, they are effectively investigated, recorded and the resulting information disseminated in a proportionate manner, deposited in the Historic Environment Record, and made publicly available?

Figure 8-1: World Heritage Sites

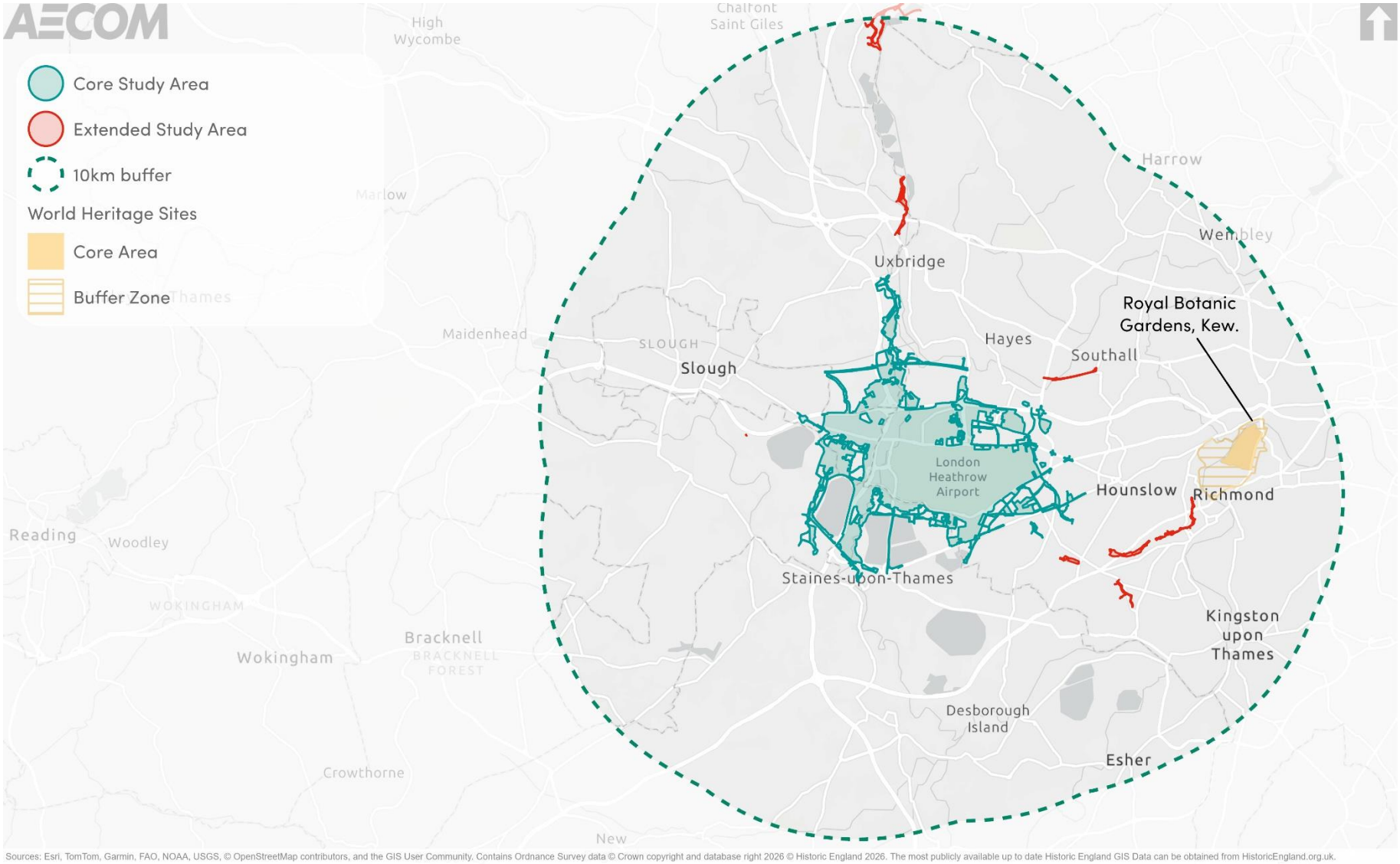


Figure 8-2: Listed Buildings and Historic Parks & Gardens

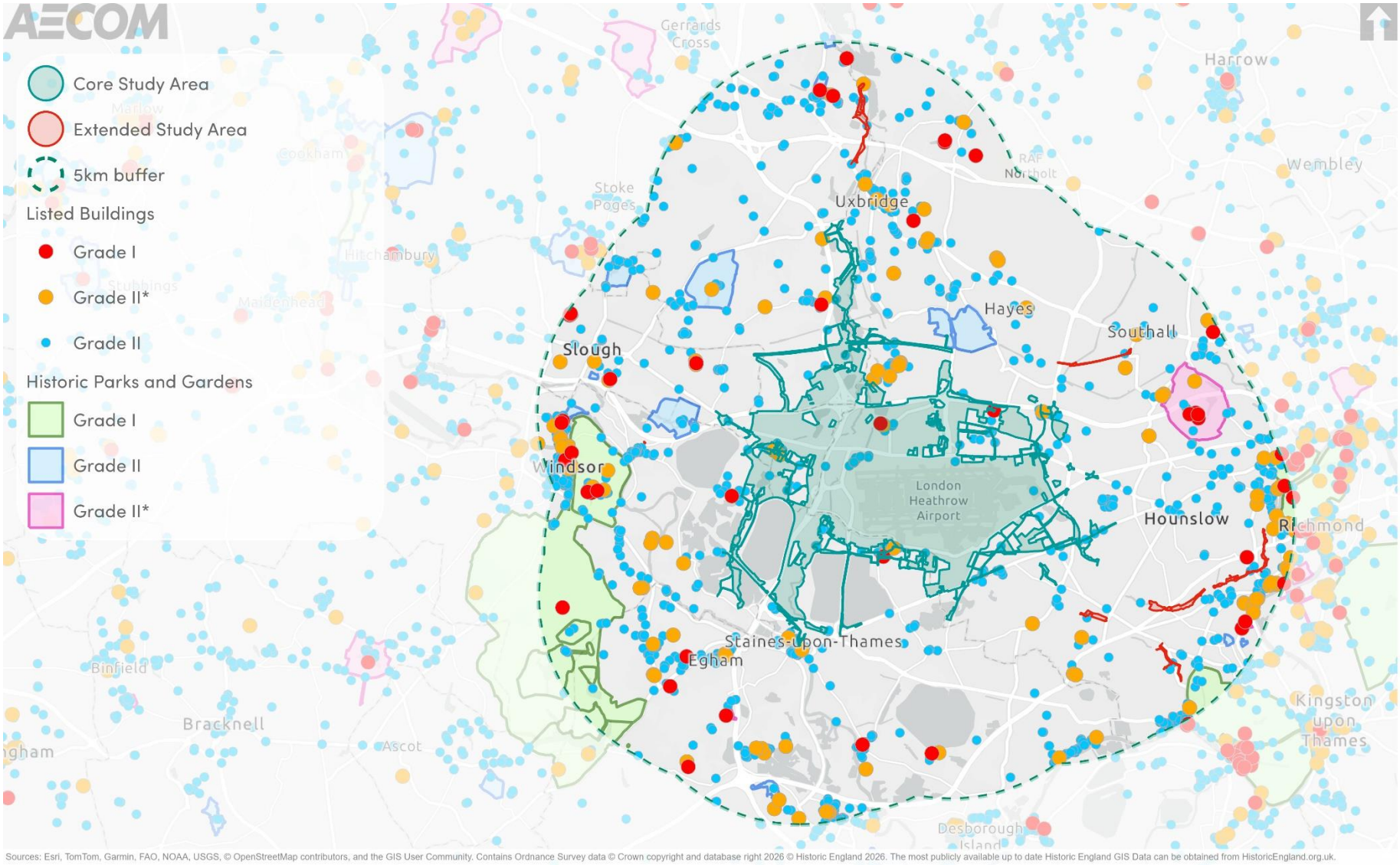
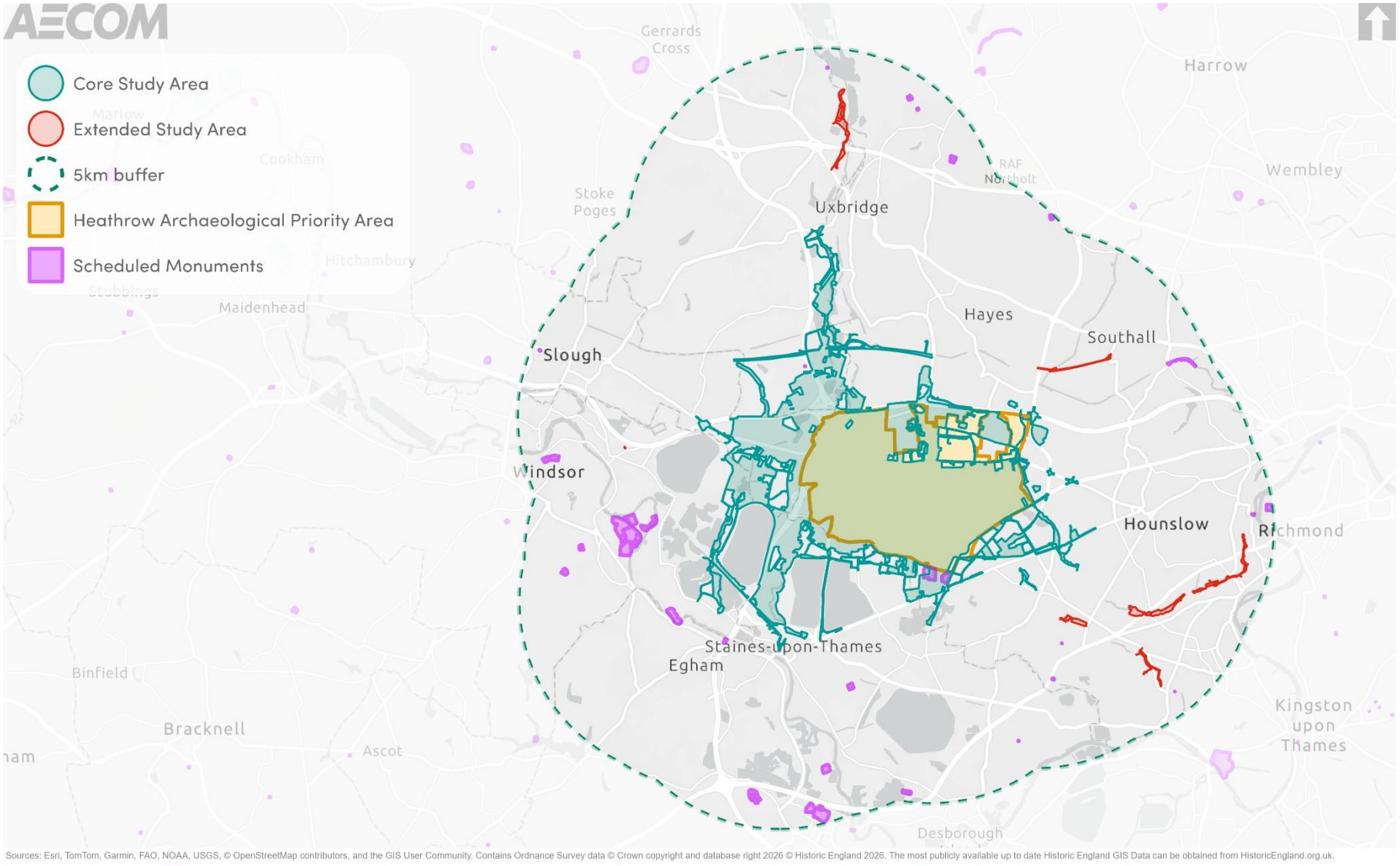


Figure 8-3: Scheduled Monuments and Heathrow Archaeological Priority Area



9. Landscape

9.1. Focus of theme

9.1.1. This theme focuses on the landscape, including designated landscapes, landscape and townscape character (including National Character Areas), tree preservation orders, dark skies and tranquillity, topography, and green belt coverage.

9.1.2. The landscape chapter will focus on the local (Heathrow) and regional (South East) baselines because landscape and visual effects from airport expansion are experienced primarily in the areas immediately surrounding the airport, while the wider South East provides the relevant landscape character context and regional designations needed to understand broader visual and character sensitivities.

9.2. Policy context

9.2.1. Landscape is protected through a number of international conventions, national legislation, and specific environmental policies. These work together to emphasise the importance of landscape character and quality. At the international level, the European Landscape Convention promotes collaborative planning and management to account for changes in land use that could negatively impact upon character, or upon key features that contribute to the special quality of the landscape. In the UK, the Countryside and Rights of Way Act 2000, supported by the recently enhanced Protected Landscapes Duty (2024) works to strengthen the management of National Landscapes. National policy frameworks also provide detailed mechanisms for landscape protection – for example, by requiring developers to identify landscape receptors, assess qualities like tranquillity and dark skies, and implement mitigation through design and screening. Local planning policies in Hillingdon and neighbouring authorities also set out requirements for safeguarding heritage assets.

9.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

9.3. Current and future baseline overview

9.3.1. The core and extended study areas are located within the wider setting of two landscape designations – the Chilterns and the Surrey Hills National Landscapes (see **Figure 9-1**). The extended study area is approximately 2 km from the Chilterns at its closest point. In relation to landscape character, it sits wholly within the Thames Valley National Character Area, and is identified as being within the gravel terrace infrastructure local landscape character type. There are a number of local landscape and townscape character types within and in proximity of the core and extended study areas, as well as multiple tree preservation orders. The study areas also overlap with parcels of the London Area Green Belt, which works to reduce coalescence between settlements (see **Figure 9-2**).

9.3.2. The future baseline is likely to be shaped by wider development pressures around Heathrow (excluding any airport expansion proposals) and by climate change. Development in the surrounding area could alter landscape character and quality, including changes to key views and components that contribute to the wider landscape setting, such as the special qualities of National Landscapes. There may also be increased pressure on the landscape if nearby parcels of London Area Green Belt are identified as grey belt opportunities. Climate change is also expected to influence landscape character through changes to key features, vegetation patterns and land use.

9.3.3. For detailed information, see the **Technical Annex**.

9.4. Key issues

9.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Landscape AoS theme:

- The study areas are located within the wider landscape setting of two landscape designations – the Chilterns and the Surrey Hills National Landscapes. Whilst development is unlikely to immediately impact upon the physical qualities of the designations, it is possible that development could impact upon their sense of tranquillity and their visual amenity, due to increased aviation activity;
- Expansion of Heathrow Airport has the potential for adverse effects on the sensitive landscape character of the Thames Valley National Character Area (NCA), including its flat floodplain, historic river-focused landscapes, pockets of semi-natural habitats, and areas of tranquillity;
- There are multiple Tree Preservation Orders within proximity to the airport; and

- The London Area Green Belt is designated to reduce coalescence between settlements, and parcels of it are adjacent to Heathrow. It is possible that growth could impact upon these parcels, or that they could be identified as grey belt land and be redeveloped themselves. This could have implications on the wider built environment and character of this area. Cumulative losses could also be anticipated if these parcels are identified as grey belt and redeveloped, given that grey belt and green belt release may be approved in neighbouring local planning authorities (e.g., Hounslow, Spelthorne, Slough etc).

9.4.2. The updated key issues are broadly consistent with the separate 2018 AoS's focus on designated landscapes, local character, and tranquillity. Notable changes since 2018 include the introduction, through the Levelling Up and Regeneration Act 2023, of a new statutory duty on relevant authorities to further the purposes of National Parks and National Landscapes. This strengthens the policy weight afforded to protected landscapes and is relevant to the assessment of airport-related development with the potential to affect their setting or special qualities. The updated key issues also reflect recent grey belt policy changes, which introduce a potential shift in how adjacent green belt land could be treated under new legislation.

9.5. AoS objective

9.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to landscape:

To promote the protection and improvement of landscapes, townscapes, waterscapes and the visual resource, including areas of tranquillity and dark skies.

9.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- … be sensitively designed to protect and enhance nationally and locally designated landscape, townscape and waterscape character and quality, including National Landscapes, in line with the statutory duty to further their purposes?
- …lead to impact on sensitive views?
- …lead to a loss of tranquillity and increase in light pollution?
- …lead to the loss of parcels of the London Area Green Belt?
- …contribute to coalescence between settlements?
- …create opportunities to enhance local landscape and townscape quality?

Figure 9-1: National landscapes

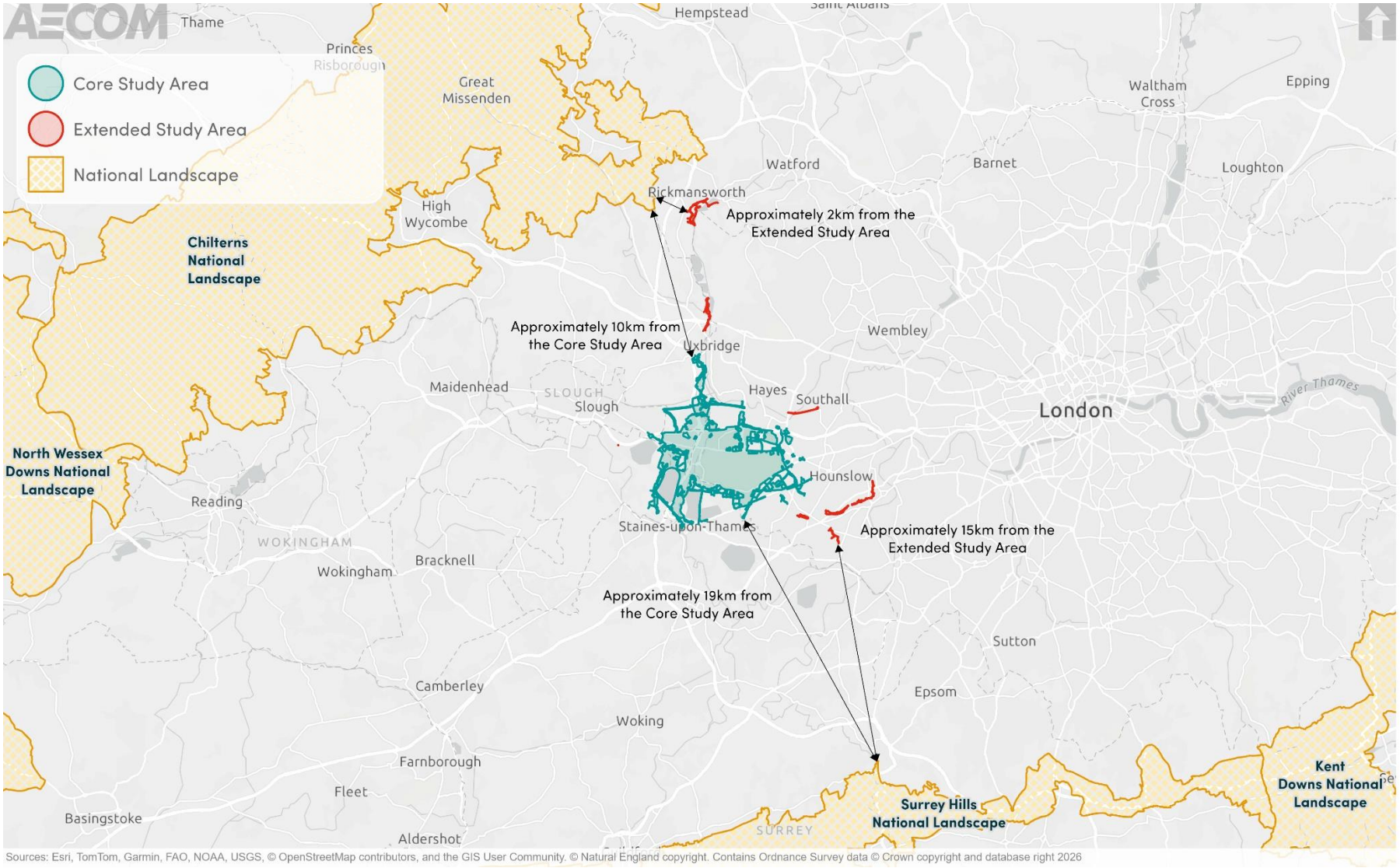
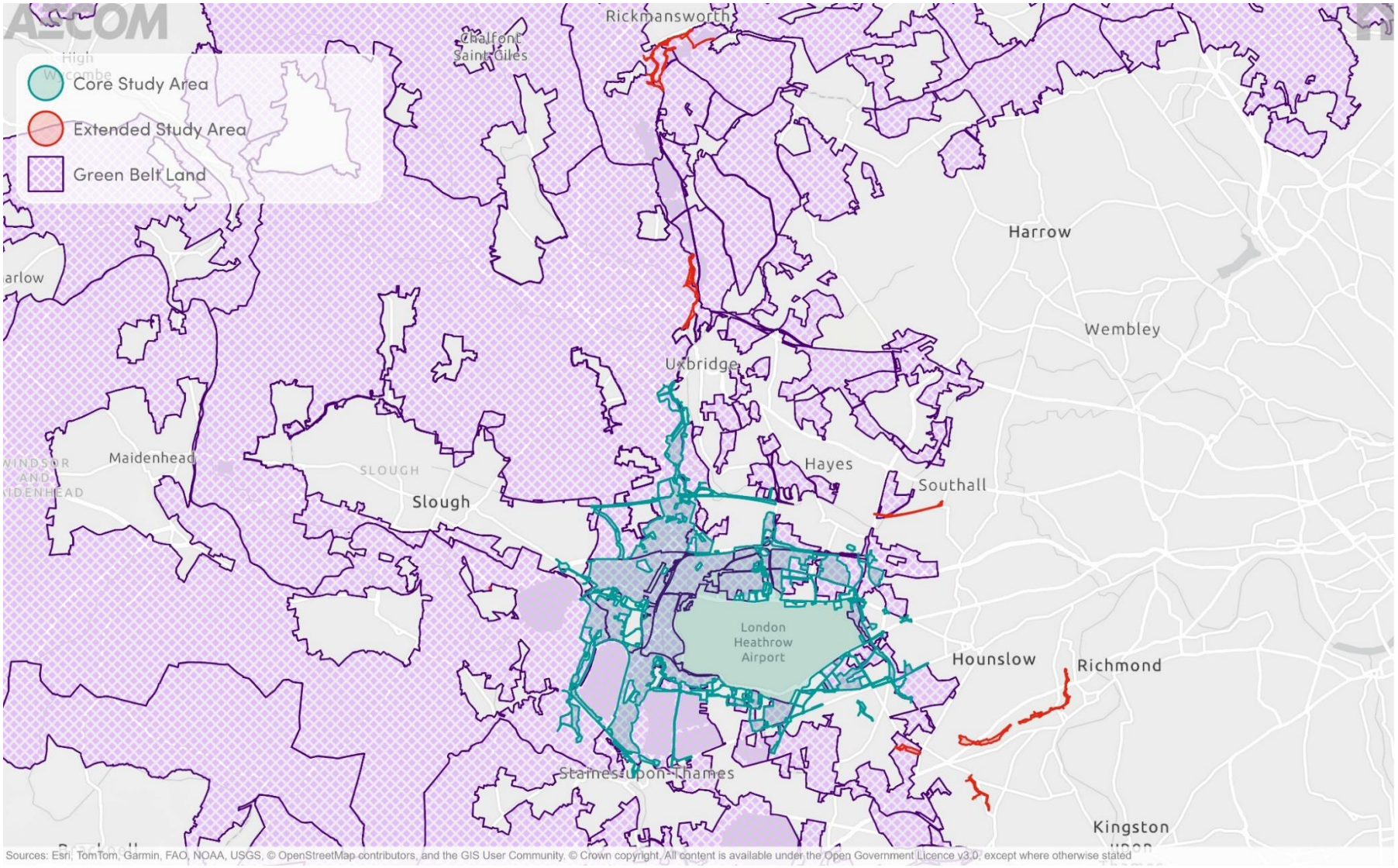


Figure 9-2: Green Belt land



10. Noise

10.1. Focus of theme

10.1.1. This theme focuses on understanding current and future noise conditions around Heathrow, including both aviation and ground-based noise sources.

10.1.2. The noise chapter will focus on the local (Heathrow) baseline because aircraft and airport-related noise impacts are highly localised, with effects on communities and noise-sensitive receptors occurring predominantly in the areas surrounding the airport and under relevant flightpaths.

10.2. Policy context

10.2.1. Noise is managed through a suite of national aviation and environmental policy and statutory instruments. The Environmental Noise (England) Regulations 2006 set requirements for strategic noise mapping and action planning, while the Aviation Policy Framework (2013) sets out the Government's approach to minimising and mitigating aircraft noise. The Civil Aviation Act 1982 also underpins the Government-set night-flight restrictions at Heathrow. The UK Air Navigation Guidance (2023) provides direction to the Civil Aviation Authority on managing noise through airspace design and operational controls, and the Overarching Aviation Noise Policy (2023) establishes national aims for balancing aviation growth with noise impacts. The Airspace Modernisation Strategy further shapes how aircraft noise is assessed and controlled. Local planning policies within Hillingdon and neighbouring authorities also include requirements relevant to noise impacts on communities.

10.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

10.3. Current and future baseline overview

10.3.1. The noise environment around Heathrow is dominated by aircraft arrivals, departures and ground operations, with extensive residential areas across Hillingdon, Hounslow, Ealing, Richmond upon Thames, Spelthorne, Slough and Windsor and Maidenhead experiencing elevated exposure. The spatial extent of the local noise baseline is reflected in Heathrow's published noise contours in the ERCD Report 2501: in 2024, Heathrow's 54 dB LAeq,16h contour covered 129.3 km² and enclosed 400,900 people, while the 48 dB LAeq,8h night-time contour covered 94.1 km² with 372,400 people. The 55 dB Lden contour increased to 148.4 km², affecting 561,600 people. Ground noise from taxiing, engine-running and APU use also contributes to exposure in communities close to the airport perimeter. In addition, numerous Noise Important Areas (NIAs) associated with major road (including the M25, M4, A4 and A30) and rail corridors create existing high noise levels for nearby communities, indicating wider transport-related noise pressures across the area.

10.3.2. The future baseline will be shaped by operational changes within Heathrow's existing movement cap, including ongoing fleet modernisation and incremental uptake of quieter aircraft. UK Airspace Modernisation Strategy reforms may alter flightpath configurations, redistributing noise between communities. Wider regional aviation growth at other airports (such as Gatwick and Luton) may influence flight patterns, while background road and rail noise is expected to rise gradually due to regional growth, offset to some extent by electrification and modal shift.

10.3.3. For detailed information, see the **Technical Annex**.

10.4. Key issues

10.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the noise AoS theme:

- Large residential populations already experience high levels of aviation and transport noise;
- Future airspace modernisation may redistribute noise, creating potential localised increases or decreases depending on final flightpath design;
- Communities close to the airport remain particularly affected by ground noise, including APU use and engine ground-running, despite existing operational controls; and

- Sensitive receptors such as schools, hospitals, care homes and quiet/open spaces face ongoing vulnerability, especially where overflight aligns with locations valued for tranquillity or where concentration of noise may hinder learning, health or wellbeing.

10.4.2. The key issues are similar in overall theme to the separate 2018 AoS's focus on increased aviation and transport noise affecting local populations.

10.5. AoS objective

10.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to noise:

1. **To minimise and where possible reduce noise impacts on human receptors.**

10.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …avoid or reduce the harmful effects including annoyance due to exposure to noise?

11. Resources and waste

11.1. Focus of theme

11.1.1. This theme focuses on geological sites, mineral resources and waste generation, including Mineral Safeguarding Areas and designated local geological sites.

11.1.2. The resources and waste chapter will focus on the local (Heathrow) and regional (London and South East) baselines because resource use and waste generation occur primarily at the airport site, while the wider regional context reflects the waste management infrastructure, treatment capacity and strategic resource planning relevant to Heathrow's operations.

11.2. Policy context

11.2.1. Policy context is led by the Environment Act 2021 and the Resources and Waste strategy for England which together focus on resource efficiency, circular economy and waste reduction.

11.2.2. The National Planning Policy for Waste (NPPW) sets out detailed planning policy for waste management, requiring waste to be managed in accordance with the waste hierarchy, supporting the provision of sufficient waste management capacity, and ensuring that waste management is integrated into the planning system alongside other strategic land-use objectives.

11.2.3. The NPPF places a requirement on mineral planning authorities to prepare an annual Local Aggregate Assessment (LAA), which reports on the demand for and supply of aggregates in their area and supporting the safeguarding of mineral resources and associated infrastructure. Safeguarding principles may also apply to waste handling, treatment and transfer capacity through waste and minerals & waste local plans, recognising the importance of maintaining sufficient waste management infrastructure. For example, the London Plan includes Policy SI 9 (Safeguarded Waste Sites), which seeks to protect strategic waste facilities from inappropriate development that could compromise waste management capacity.

11.2.4. The West London Waste Plan provides planning framework for managing waste across the West London Boroughs up to 2031, identifying sufficient sites and capacity to manage waste sustainably in line with the London Plan and national waste policy. Slough continues to apply saved policies from the Berkshire Waste Local Plan (1998) that looks to reduce the amount of waste sent to landfill and identify suitable sites for waste management uses. Waste planning in Spelthorne is managed by the Surrey Waste Local Plan. The Plan guides how waste will be managed, treated and disposed of in the county up to 2033.

11.2.5. See the **Technical Annex** for further information on plans, policies, and strategies.

11.3. Current and future baseline overview

11.3.1. There are four Mineral Safeguarding Areas (MSAs) within the core study area (see **Figure 11-1**) and much of eastern Slough is protected under saved policies from the 1997 Minerals Local Plan. There are three designated geological sites within the core study area (see **Figure 11-2**). In line with circular economy principles and national policy, there is an increasing emphasis on the use of secondary and recycled aggregates as a means of reducing reliance on primary mineral extraction. This presents a significant opportunity in London and the South East, which are major construction hubs with large arisings of construction, demolition and excavation waste.

11.3.2. With regard to waste, both London and the South East of England rely on a mix of landfill, incineration and recycling to manage their waste (Local authority collected waste management – Provisional annual results 2023/24). South East England had the largest tonnage of total waste out of all regions in England as of 2024. Despite London Plan objectives for increased self-sufficiency, London remains a net exporter of waste, particularly construction and demolition waste and residual municipal waste, placing reliance on management capacity beyond the capital.

11.3.3. At a local level, according to the Heathrow Resources and Waste Strategy, the airport contributed 22,054 tonnes of operations waste as of 2024, which is a decrease since 2019. The largest contributor of waste from the Airport is waste related to its construction activities.

11.3.4. The future baseline is characterised by the increasing waste generation from a growing population alongside an increased demand for minerals and aggregates to support wider development in the region. The capacity of existing waste management facilities and mineral resources will need to be regularly assessed to ensure that they can cope with increasing demand. The Environmental Targets (Residual Waste) (England) Regulations 2023 set a statutory target to ensure that the total mass of all residual waste (excluding major mineral wastes) do not exceed 287 kg per person in 2042. This would be a 50% reduction from 2019 levels.

11.3.5. For detailed information, see the **Technical Annex**.

11.4. Key issues

11.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Resources and Waste AoS theme:

- There are three geological sites within the core study area;
- There are four MSAs within the core study area;
- Potential sterilisation of mineral resources of local or national importance, where development encroaches on MSAs, highlighting the need for early identification and proportionate assessment of the type and extent of affected reserves;
- Reliance on secondary aggregates and off-site waste management infrastructure, including facilities beyond London, and the implications of capacity constraints for sustainable delivery of airport-related development;
- Generation of waste related to operational and construction activities and associated indirect effects arising from off-site treatment and processing of waste materials;
- Local and regional waste storage capacity issues;
- Opportunities for on-site processing of waste materials from airport operations or construction activities;
- The core study area contains existing waste processing facilities and former waste sites, and their loss, relocation, or disturbance could reduce local waste management capacity and require replacement provision, including early identification, characterisation and treatment of affected sites; and

- The need for appropriate characterisation, pretreatment and permitting of waste materials arising from construction, demolition or site remediation activities, with implications for regulatory approvals and analytical capacity at later stages.

11.4.2. The updated key issues are broadly the same as those previously identified in the separate 2018 AoS, still covering construction waste, capacity constraints, and opportunities for on-site management.

11.5. AoS objective

11.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objectives in relation to resources and waste:

1. **To minimise consumption of natural, particularly virgin non-renewable, resources.**
2. **To minimise the generation of waste in accordance with the principles of the resource efficiency hierarchy.**
3. **To protect sites designated for geodiversity.**

11.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …minimise the consumption of natural resources?
- …promote and enable circular economy principles, including the reuse, recovery and recycling of materials during construction and operation?
- …support innovation in sustainable construction, such as the use of low-carbon materials or recycled aggregates?
- …minimise waste generated during construction and operation?
- …preserve, protect and improve geodiversity?
- …avoid the sterilisation of known mineral resources of local or national importance?
- …avoid the loss of existing waste processing capacity, or ensure suitable replacement provision is secured where displacement is unavoidable?

Figure 11-1: Mineral Safeguarding Areas

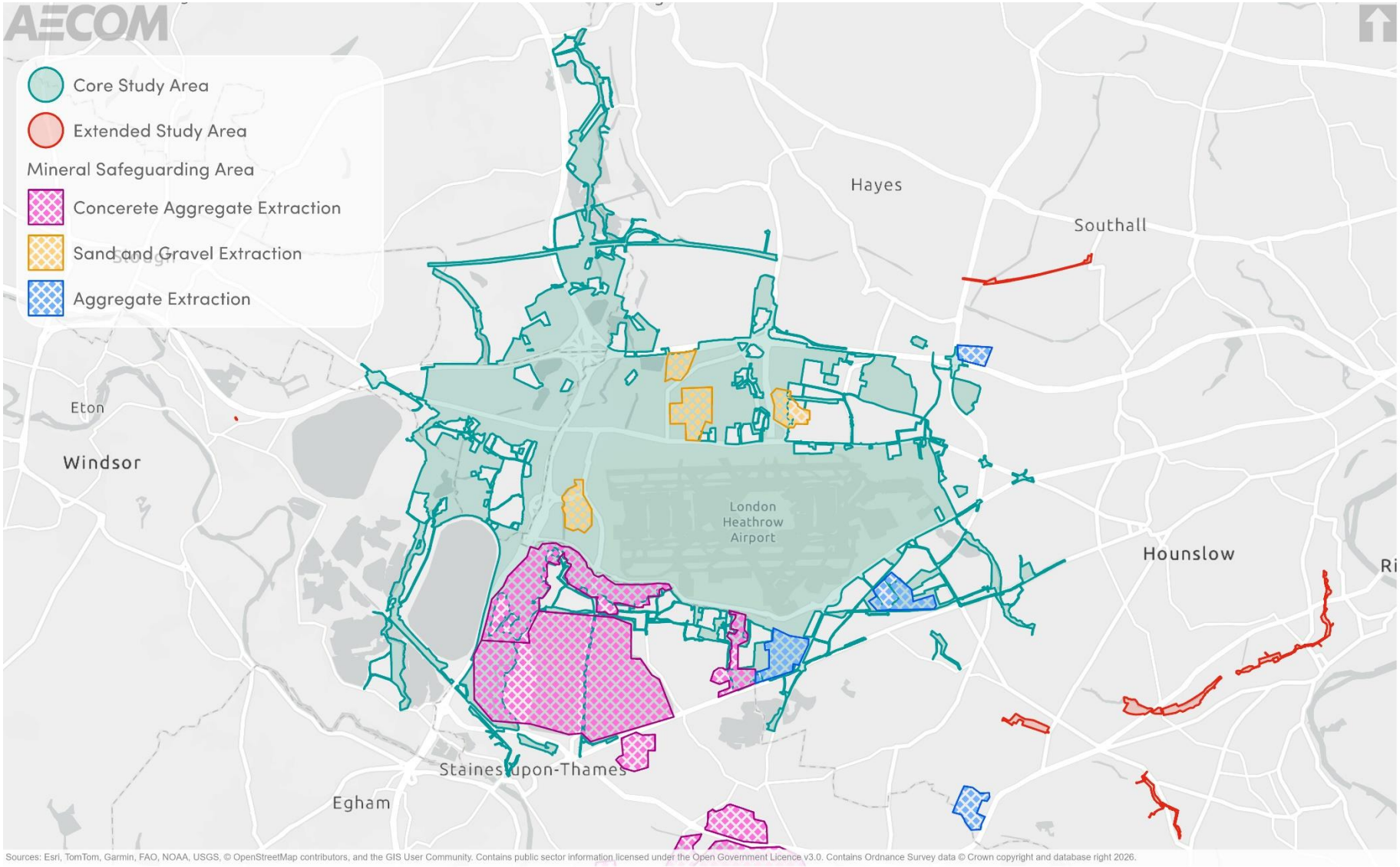


Figure 11-2: Geodiversity sites

12. Soils

12.1. Focus of theme

12.1.1. This theme focuses on soils, land quality and agricultural land, including the condition and functions of soils in the Heathrow area and the potential effects of airport-related development on these resources.

12.1.2. The soils chapter will focus on the local (Heathrow) baseline because soil types, contamination risks and ground conditions are highly site-specific, and any effects from airport expansion would occur directly on or immediately around the airport site.

12.2. Policy context

12.2.1. The policy context for soils and land quality is established through a range of national planning and environmental frameworks. The NPPF sets out policies to protect and enhance soils, safeguard Best and Most Versatile (BMV) agricultural land, and ensure the safe remediation of contaminated land. The Environmental Improvement Plan (2023) reinforces national commitments to improve soil health, prevent degradation and enhance natural capital. Guidance provided through Defra's Agricultural Land Classification (ALC) system, Natural England's Predictive BMV Assessment, and the Contaminated Land Statutory Guidance (Defra, 2012) also informs expectations for land quality, agricultural land protection and the management of contamination risks. For brownfield land and historic landfill sites, the Environment Agency's Land Contamination Risk Management (LCRM) guidance and its Approach to Groundwater Protection provide the regulatory framework for risk assessment, investigation and remediation.

12.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

12.3. Current and future baseline overview

12.3.1. The current baseline around Heathrow comprises a varied soil and land quality environment, including significant areas of Grade 1 (Excellent) agricultural land to the north and south of the existing airport boundary, alongside pockets of Grade 3 land of mixed quality (**Figure 12-1** and **Figure 12-2**) (Agricultural Land Classification map London and the South East - ALC007). Much of the land in and around the core and extended study area also forms part of the London Green Belt, which contributes to landscape openness and provides undeveloped land with soil-based ecosystem services. The baseline additionally features numerous historic landfill sites, several of which fall within or adjacent to the core study area, presenting potential risks from contaminated materials, ground gases and leachate (see **Figure 12-3**). Together with areas of brownfield land and previously developed sites, these characteristics reflect an area that is sensitive to disturbance, degradation, sealing and contamination. These characteristics mean that future development in the Heathrow area will require site-specific investigation and remediation strategies, particularly where historic landfill sites or contaminated land are affected, recognising that remediation approaches will need to reflect the heterogeneous nature of such sites.

12.3.2. Future baseline conditions are expected to be shaped by ongoing development pressures within West London and the anticipated effects of climate change. Gradual growth could lead to incremental loss or fragmentation of agricultural land, including potential impacts on the Grade 1 soils and other BMV land identified near Heathrow. The London Green Belt is also likely to face changing pressures due to wider planning reforms, including the emerging grey belt policy framework, which introduces greater flexibility for releasing lower-performing areas of green belt for development. While local implications remain uncertain, these wider changes could alter long-term land use patterns and increase the likelihood of development on green belt land near Heathrow. Climate change is expected to intensify risks of soil erosion, drought stress, waterlogging and the mobilisation of contaminants, with particular implications for the area's many historic landfill sites.

12.3.3. For detailed information, see the **Technical Annex**.

12.4. Key issues

12.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Soils AoS theme:

- There are areas of Grade 1 (Excellent) and other BMV agricultural land around Heathrow, indicating that development could lead to the permanent loss of important soil resources;
- The presence of numerous historic landfill sites within and adjacent to the core study area introduces risks of ground gases, leachate and contaminated materials being mobilised during ground disturbance, requiring site-specific characterisation, remediation and mitigation measures;
- Parts of the core study area include brownfield land and previously developed sites where residual contamination may require investigation and remediation, with a focus on reducing contaminant mass and protecting soil, groundwater and surface water quality;
- Development proposals may need to cross or affect multiple historic and regulated landfill sites, requiring site-specific remediation strategies and appropriate regulatory controls;
- Much of the land around Heathrow lies within the London Green Belt, meaning that development could affect soils that contribute to openness, ecological value and other soil-based functions; and
- Future pressures from climate change and emerging grey belt planning reforms may increase soil vulnerability through erosion, drought, waterlogging and changes in land availability, affecting the long-term resilience of soil resources.

12.4.2. The key soils issues are largely similar to those previously identified in the separate 2018 AoS, still focusing on loss of agricultural soils and risks from erosion, contamination and disturbance. The main new aspects relate to the 2024 grey belt reforms.

12.5. AoS objective

12.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to soil:

1. **To minimise loss of undeveloped soils and protect soils against erosion, contamination and degradation.**

12.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …maximise construction on previously developed land, minimise use of greenfield land (including higher quality category agricultural land)?
- …lead to the disturbing, harm, contamination or loss of soil/land resources?
- …support the remediation of contaminated land?
- …create opportunities to enhance soil health or restore degraded soils?
- …embed nature-based solutions to protect ecosystem services provided by soils?
- …avoid disturbing historic landfill sites or, where unavoidable, ensure appropriate mitigation is in place to avoid adverse effects?

Figure 12-1: Agricultural land classification (pre 1988)

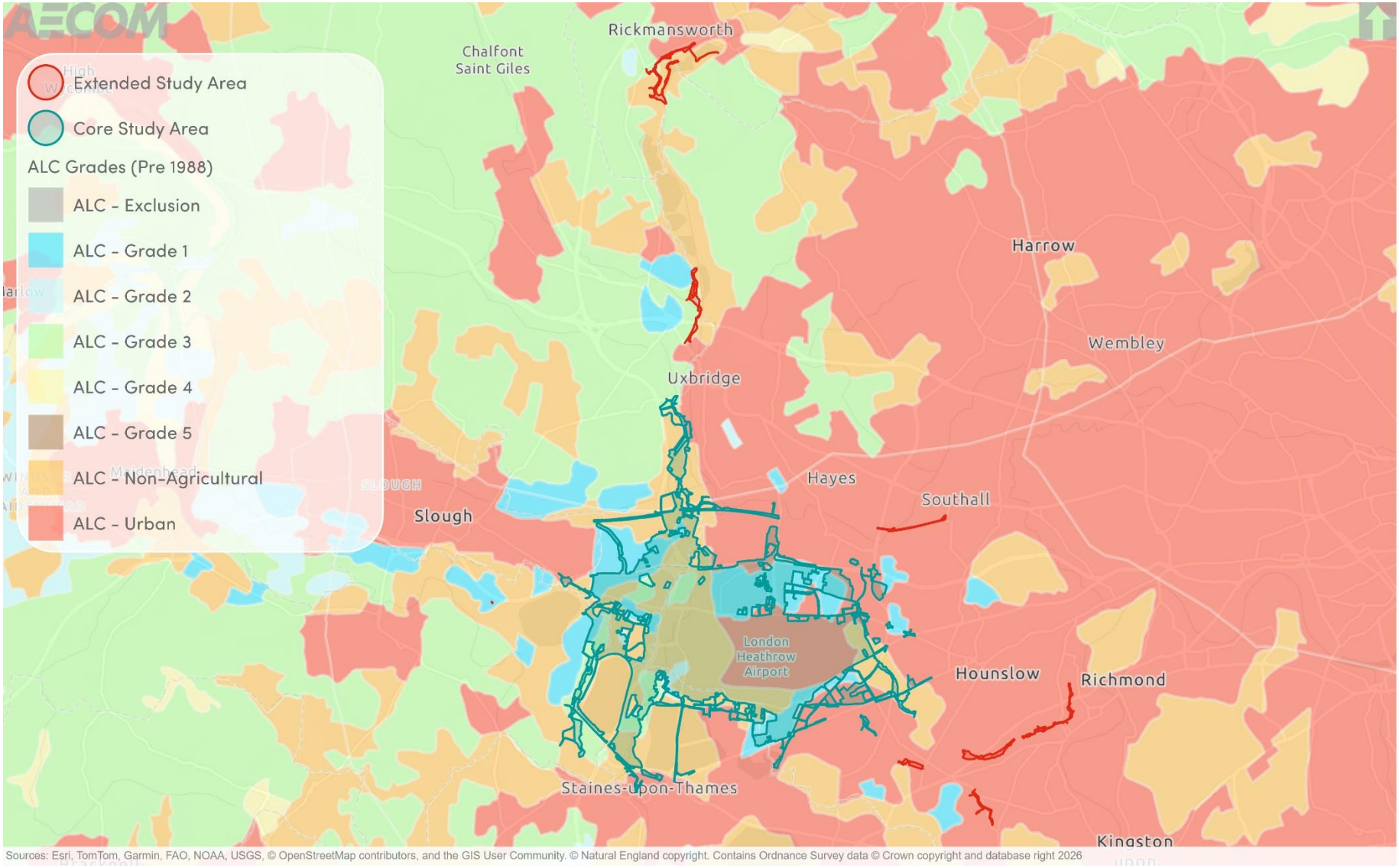


Figure 12-2: Agricultural land classification (post 1988)

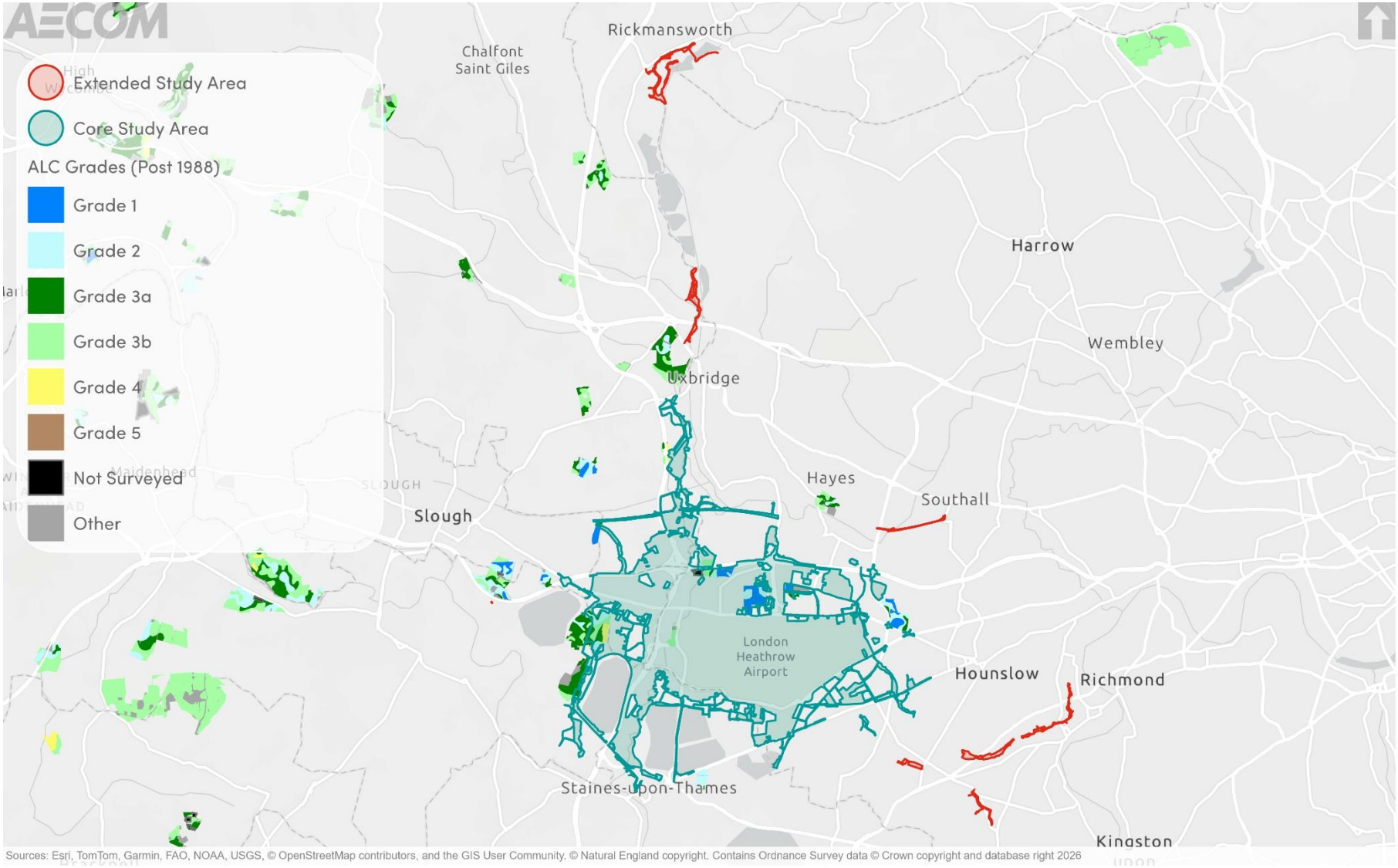
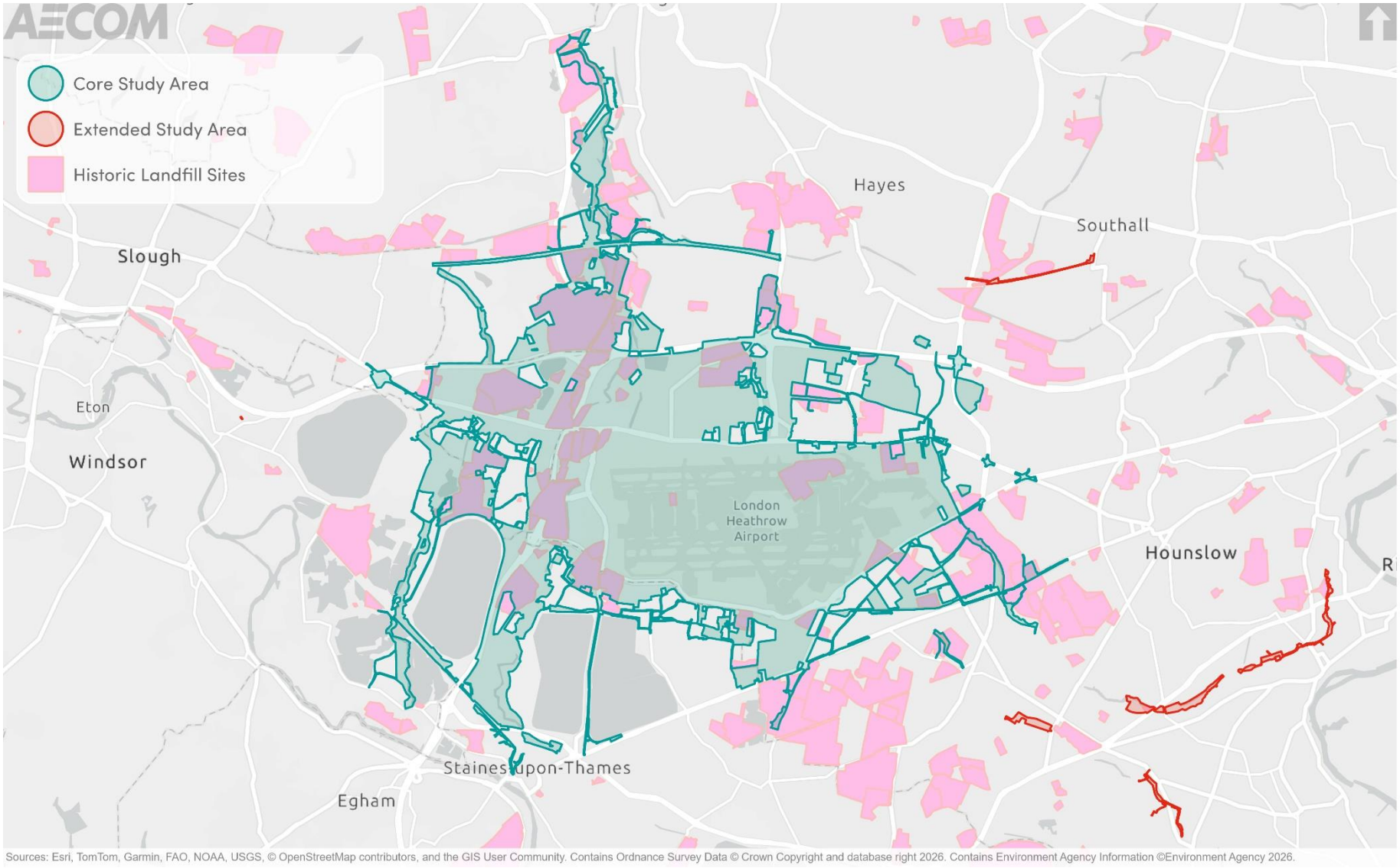


Figure 12-3: Historic landfill sites



13. Water

13.1. Focus of theme

13.1.1. This theme focuses on the water environment and water resources relevant to the core and extended study areas and the potential impacts of the proposed Heathrow Airport expansion on these features.

13.1.2. The water chapter will focus on the local (Heathrow) and regional (South East and London) baselines because potential effects on surface water, groundwater, drainage and flood risk are driven by conditions in and around the airport, while the wider regional context reflects the catchments, aquifers and strategic water resource areas relevant to Heathrow.

13.2. Policy context

13.2.1. The policy context for the water environment is defined by the Water Framework Directive (WFD) which was transposed into UK law through the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The regulations set an objective for all rivers, lakes, estuaries, groundwater and coastal water bodies to achieve 'Good' ecological and chemical status. This is supported by the NPPF, which seeks to improve the water environment and recognises the wider benefits of natural capital and derived from ecosystem services. Furthermore, the NPPF recognises the need to take account of the long-term implications of climate change and build resilience. National policy is supported by local planning policies adopted by the London Borough of Hillingdon, Spelthorne Borough Council and Slough Borough Council, which promote the protection and enhancement of water resources and quality.

13.2.2. See the **Technical Annex** for further information on plans, policies, and strategies.

13.3. Current and future baseline overview

13.3.1. The core and extended study areas and their surroundings are located within the Thames River Basin District and falls within nine WFD water body areas, all of which recorded moderate ecological status in 2022 and failed the latest chemical status assessment in 2019 (see **Figure 13-1**). The baseline is further characterised by the presence of multiple main rivers, ordinary watercourses, lakes and canals within and around the study area, as well as the presence of Nitrate Vulnerable Zones in the wider area (see **Figure 13-3**). Parts of the core and extended study areas are also located within Drinking Water Safeguard Zones and Source Protection Zones (SPZ) for both groundwater and surface water (see **Figure 13-2** and **Figure 13-3**).

13.3.2. Water supply for the study areas is supplied from an area that is classified as being under 'serious' water stress, and, together with sensitive groundwater sources demonstrates the vulnerability of the local water environment to population growth, climate change and environmental and infrastructure constraints.

13.3.3. Future baseline conditions are expected to be shaped through increased water consumption, pollution, wastewater discharge, climate change, surface water runoff and physical modification of the water environment within the core and extended study areas. The requirements of The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 are expected to continue to drive improvements in water quality across the wider area. However, new development proposals across West London will still need to prevent deterioration and support demand management measures by contributing to reduced consumption and improved efficiency. The future baseline will also be influenced by climate change, which is expected to exacerbate existing pressures on water availability and quality through more frequent droughts, reduced river flows and more intense rainfall events that increase runoff and pollution risks.

13.3.4. For detailed information, see the **Technical Annex**.

13.4. Key issues

13.4.1. Considering the policy context and baseline information, the following key issues (constraints and / or opportunities) are identified in relation to the Water AoS theme:

- Development has the potential to adversely affect both chemical and ecological water quality through physical alteration of watercourses, discharges, surface water runoff, abstraction and infiltration. The nine waterbodies that cover the study areas recorded moderate ecological status, but failed their last chemical status assessment, highlighting the need to avoid further deterioration and, where possible, support opportunities for enhancement;
- The study areas are located in an area that is classified as experiencing 'serious' water stress, highlighting the urgent need for water efficiency measures in all new development to support long-term water supply resilience. New development should consider sustainable water management, including rainwater harvesting, greywater recycling, and water-efficient appliances to mitigate an increase in demand;
- Development within drinking water protection areas must be carefully managed to prevent further contamination of key groundwater and drinking water resources; and
- Climate change is expected to intensify pressures on water resources and quality, increasing the likelihood of drought and pollution events, and necessitating robust adaptation and mitigation measures.

13.4.2. The key issues are broadly similar to the separate 2018 AoS's focus on risks to chemical and ecological water quality and increasing pressure on water resources. The only notable additions are the emphasis on serious local water stress, drinking water protection areas, and climate-driven pressures.

13.5. AoS objective

13.5.1. Considering the key issues discussed above, it is proposed that the AoS should include the following objective in relation to water:

1. **To protect and enhance the quality of surface and ground waters, and promote the efficient use of water resources.**

13.5.2. The following questions will help assess how well each option supports the AoS objective. Will the option/proposal...:

- …lead to surface and groundwater quality being adversely affected?

- …result in the modification of watercourses?
- …support the identification, monitoring and remediation of contaminated groundwater, including legacy contamination associated with existing or former airport activities (such as PFAS), and avoid the mobilisation of contaminants?
- …lead to an increase in the consumption of available water resources?
- …support opportunities for ecological or chemical water quality enhancement of local waterbodies?
- …incorporate appropriate drainage and water management measures, including nature-based solutions where runoff is uncontaminated, and suitable treatment or proprietary systems where contamination risks are present, to protect water quality, enhance ecological status and increase resilience to drought and flooding?
- …promote water efficiency and reduced consumption?

Figure 13-1: Waterbodies in the Heathrow area

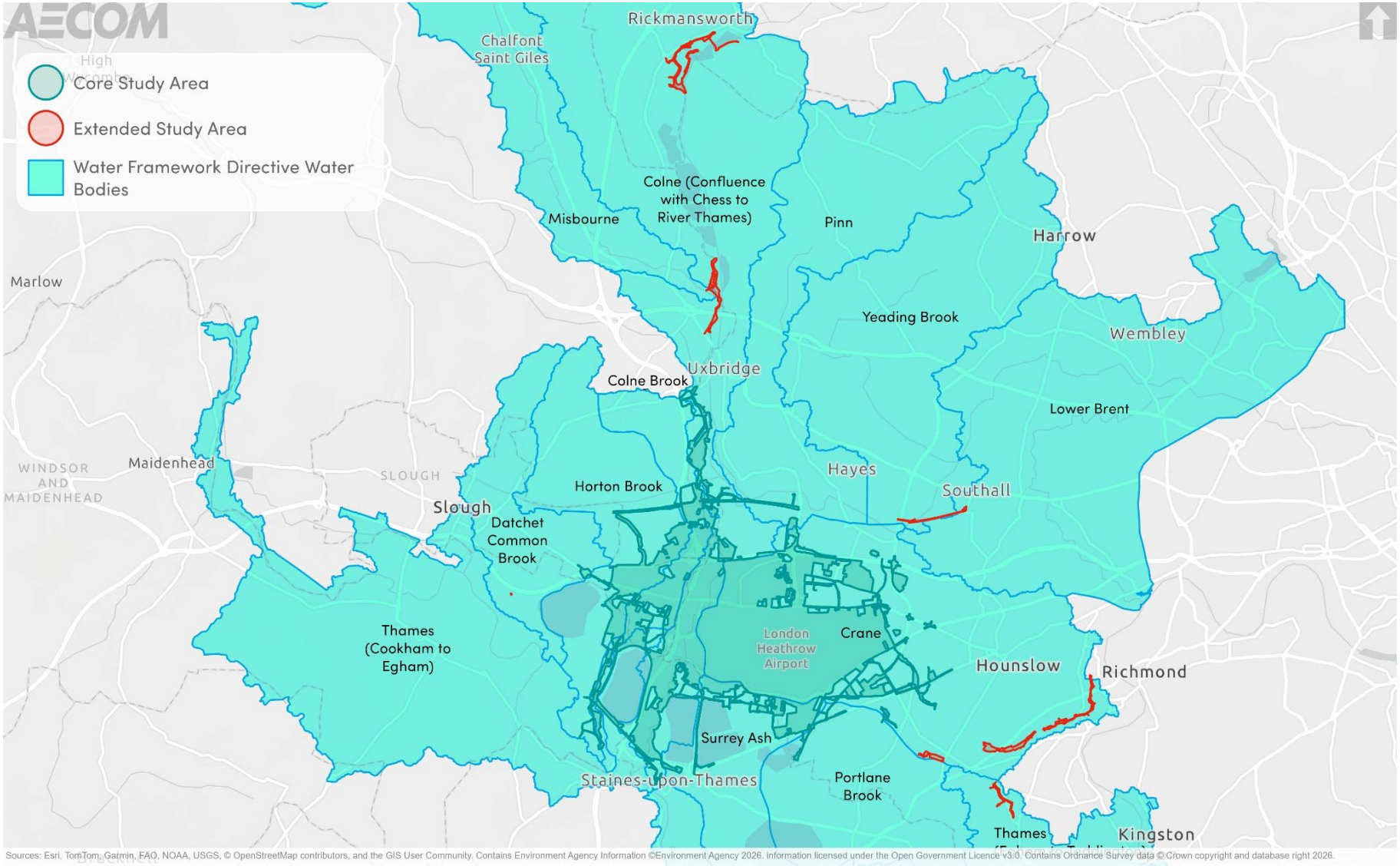


Figure 13-2: Source Protection Zones

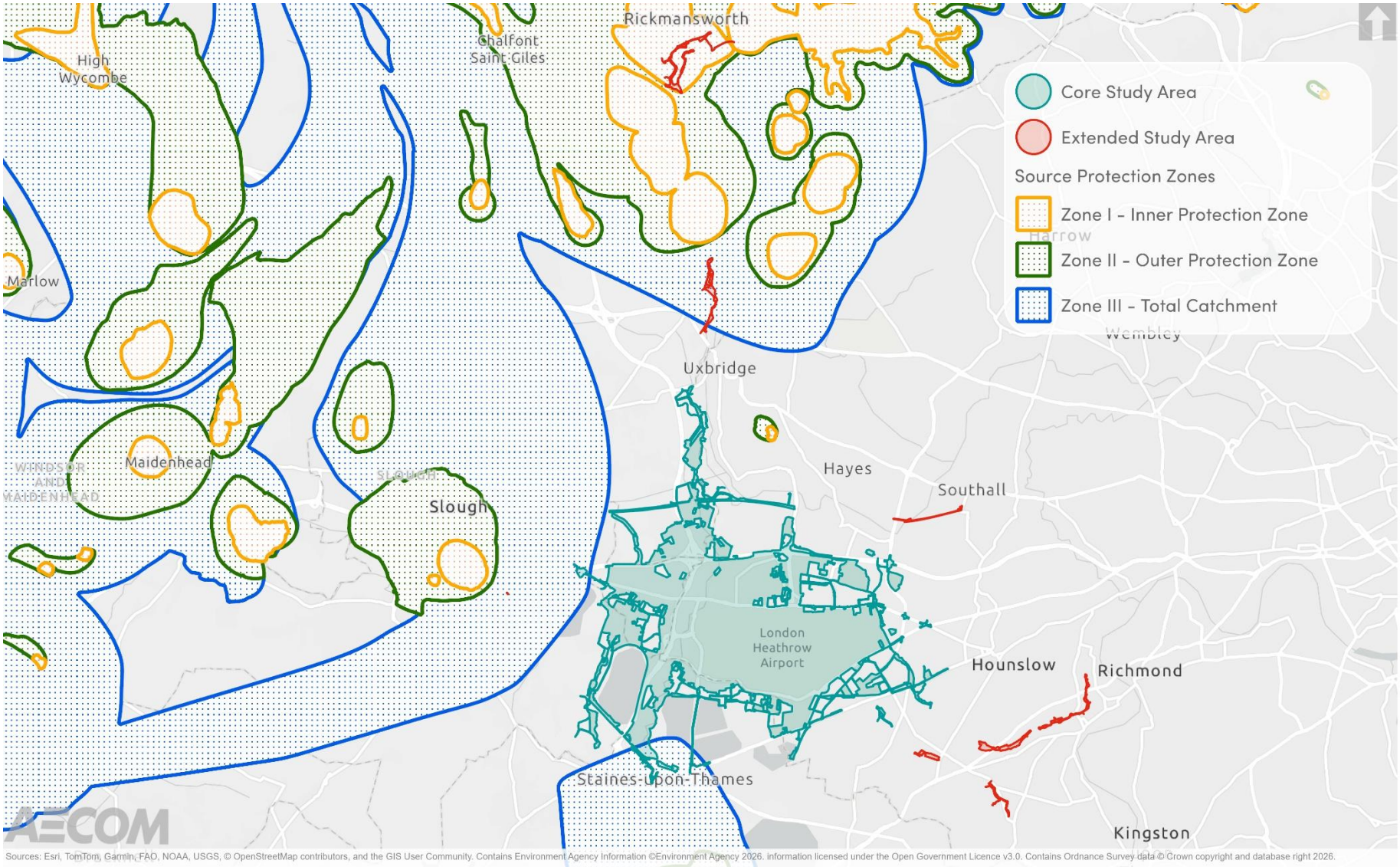
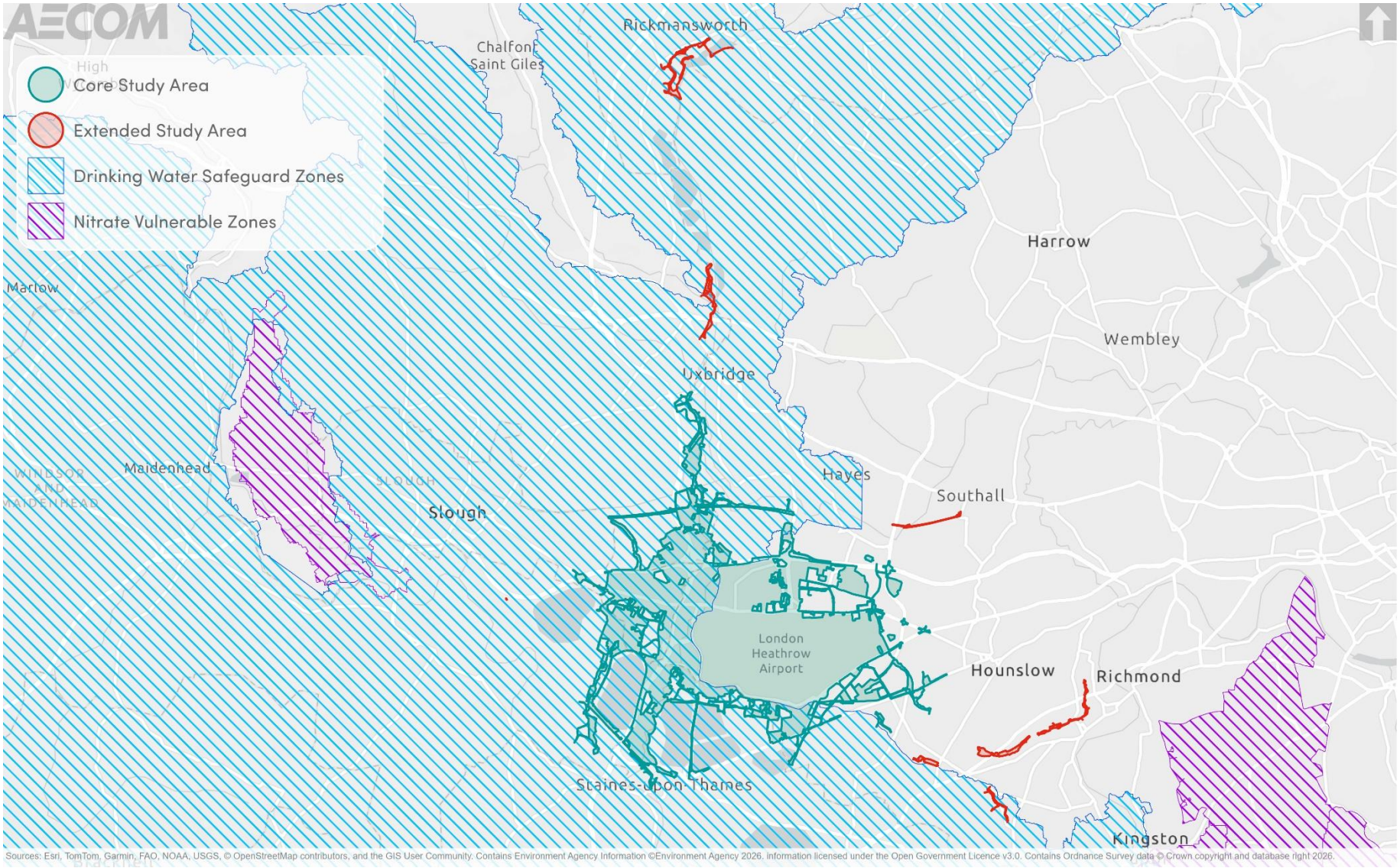


Figure 13-3: Nitrate Vulnerable Zones and Drinking Water Safeguard Zones



14. Proposed AoS framework

14.1.1. The AoS framework has been established through the identification of key issues and environmental objectives as part of the scoping exercise. It is based on the original AoS framework used for the 2018 ANPS, with minor updates and refinements to reflect the latest baseline information and policy context across the AoS themes (as set out in **Chapters 3–13**).

14.1.2. The framework consists of a set of headline objectives and supporting assessment questions, which will be used to appraise the environmental effects of the AoS (and reasonable alternatives).

14.1.3. **Table 14-1** outlines the proposed AoS framework, bringing together the objectives that have been set out at the end of each AoS theme.

Table 14-1: Proposed AoS framework

AoS theme	AoS objective	Supporting questions (will the option/proposal...:)
Air Quality	• To minimise emissions from airport-related activities within Heathrow's control and influence, and to avoid exacerbating existing air quality issues, in order to support compliance with international, national and local air quality objectives.	• …minimise air pollutant emissions arising from activities within the airport's control or influence, including airport operations, construction activities and associated surface access? • …avoid worsening existing air quality conditions or delaying progress towards compliance with air quality objectives in the Heathrow area? • …reduce exposure to air pollution for local communities and sites designated for nature conservation, recognising areas already sensitive to air quality impacts? • …support wider efforts by relevant authorities to improve air quality, without relying on actions outside the airport's control to offset airport-related emissions?
Biodiversity	• To protect and enhance designated sites for nature conservation. • To conserve and enhance undesignated habitats, species, valuable ecological networks and ecosystem functionality, and support the delivery of Biodiversity Net Gain.	• …affect the internationally designated, nationally and locally designated biodiversity sites? • …lead to adverse significant effects on the internationally designated South West London Waterbodies SPA and Ramsar? • …conserve and enhance undesignated habitats, priority habitats and species, internationally and nationally protected species, and the ecological networks that support them? • …has a measurably positive impact on the delivery of the London Local Nature Recovery Strategy? • … increase the exposure of wildlife to transport noise, air pollution, and water pollution? • …result in changes to water quantity (including abstraction, flow, drainage and hydrological regimes) that could affect water-dependent habitats and species? • … increase the occurrence of bird strikes in relation to aviation activity surrounding Heathrow?
Climate Change	• To minimise carbon emissions in airport	• …be consistent with overall carbon budget requirements? • …minimise carbon emissions associated with surface transportation? • …reduce fluvial, surface and groundwater flood risk on and off site?

AoS theme	AoS objective	Supporting questions (will the option/proposal...:)
	construction and operation, including flight emissions. • To minimise risks to development from all sources of flooding and ensure resilience to climate change.	• …increase the resilience of the area to the likely impacts of climate change, including through the incorporation of nature-based solutions? • …affect the intensity and occurrence of the Urban Heat Island effect at Heathrow Airport?
Communities and Quality of Life	• To avoid or minimise negative effects on community viability, including housing, facilities and indirect effects. • To avoid or minimise disproportionate impacts on any social group. • To maintain and where possible improve the quality of life for local residents and the wider population.	• …lead to a loss of housing and community facilities? • …lead to increasing demand for housing and community facilities? • …lead to indirect effects on community viability? • …minimise disproportionate negative effects on particular locations, users or vulnerable groups? • …help to maintain and improve quality of life? • …lead to the loss of publicly accessible greenspace or reduce access to recreational areas? • …result in physical or perceptual severance that affects community connectivity, access to services or ease of movement?
Economy	• To maximise economic benefits and to support the competitiveness of the UK economy. • To promote employment and economic growth in the local area and surrounding region	• …enhance economic growth? • …contribute to sustainable growth in employment? • …support the productivity of the UK economy? • …deliver inclusive economic benefits for local communities? • …incorporate accessibility improvements, particularly with key local employment centres and areas of high unemployment? • …support growth and diversification of the local economy?
Historic Environment	• To conserve and where possible enhance the historic environment including buildings, structures, townscapes and landscapes and archaeological remains.	• …affect the significance of internationally and nationally designated heritage assets and their settings? • …affect the significance of non-designated heritage assets and their settings? • … conserve and, where possible, enhance the historic environment including landscapes, townscapes, buildings, structures, and archaeological remains by supporting high-quality design and sensitive integration with local character?

AoS theme	AoS objective	Supporting questions (will the option/proposal...:)
		• …harm the significance of heritage assets (for example from the generation of noise, pollutants and visual intrusion)? • …promote high-quality design that reinforces local character? • …increase the risk to the continued viable use of heritage assets with consequent loss of their significance? • …ensure that, where heritage assets are affected by development, they are effectively investigated, recorded and the resulting information disseminated in a proportionate manner, deposited in the Historic Environment Record, and made publicly available?
Landscape	• To promote the protection and improvement of landscapes, townscapes, waterscapes and the visual resource, including areas of tranquillity and dark skies.	• … be sensitively designed to protect and enhance nationally and locally designated landscape, townscape and waterscape character and quality, including National Landscapes, in line with the statutory duty to further their purposes? • …lead to impact on sensitive views? • …lead to a loss of tranquillity and increase in light pollution? • …lead to the loss of parcels of the London Area Green Belt? • …contribute to coalescence between settlements? • …create opportunities to enhance local landscape and townscape quality?
Noise	• To minimise and where possible reduce noise impacts on human receptors.	• …avoid or reduce the harmful effects including annoyance due to exposure to noise?
Resources and Waste	• To minimise consumption of natural, particularly virgin non-renewable, resources. • To minimise the generation of waste in accordance with the principles of the resource efficiency hierarchy. • To protect sites designated for geodiversity.	• …minimise the consumption of natural resources? • …promote and enable circular economy principles, including the reuse, recovery and recycling of materials during construction and operation? • …support innovation in sustainable construction, such as the use of low-carbon materials or recycled aggregates? • …minimise waste generated during construction and operation? • …preserve, protect and improve geodiversity?

AoS theme	AoS objective	Supporting questions (will the option/proposal...:)
		• …avoid the sterilisation of known mineral resources of local or national importance? • …avoid the loss of existing waste processing capacity, or ensure suitable replacement provision is secured where displacement is unavoidable?
Soil	• To minimise loss of undeveloped soils and protect soils against erosion, contamination and degradation.	• …maximise construction on previously developed land, minimise use of greenfield land (including higher quality category agricultural land)? • …lead to the disturbing, harm, contamination or loss of soil/land resources? • …support the remediation of contaminated land? • …create opportunities to enhance soil health or restore degraded soils? • …embed nature-based solutions to protect ecosystem services provided by soils? • …avoid disturbing historic landfill sites or, where unavoidable, ensure appropriate mitigation is in place to avoid adverse effects?
Water	• To protect and enhance the quality of surface and ground waters, and promote the efficient use of water resources.	• …lead to surface and groundwater quality being adversely affected? • …result in the modification of watercourses? • …support the identification, monitoring and remediation of contaminated groundwater, including legacy contamination associated with existing or former airport activities (such as PFAS), and avoid the mobilisation of contaminants? • …lead to an increase in the consumption of available water resources? • …support opportunities for ecological or chemical water quality enhancement of local waterbodies? • …incorporate appropriate drainage and water management measures, including nature-based solutions where runoff is uncontaminated, and suitable treatment or proprietary systems where contamination risks are present, to protect water quality, enhance ecological status and increase resilience to drought and flooding? • …promote water efficiency and reduced consumption?

15. Next steps

15.1. AoS stages

15.1.1. Scoping (the current stage) is the first stage of the AoS process:

- Scoping;
- Assess reasonable alternatives (to inform the draft AoS);
- Prepare the AoS Report (to inform consultation and AoS finalisation); and
- Prepare the post-adoption statement (following adoption of the final HENPS).

15.1.2. It is understood that the Department for Transport will be undertaking a consultation on a draft HENPS in summer 2026. To accompany this consultation, an AoS Report will be prepared, which will include an assessment of reasonable alternatives. It will also include an assessment of the draft HENPS as consulted on.

15.1.3. An Environmental Impact Assessment (EIA) will be undertaken and will need to be submitted alongside any development consent order applications to which the draft HENPS applies. This will be brought forward as an entirely separate workstream to the AoS. Whereas the AoS considers the likely environmental effects of the plan or programme, EIA is undertaken at the project level once individual schemes are sufficiently defined. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires that the significant environmental effects of such projects are assessed prior to the granting of development consent. An EIA is currently under development by Heathrow Airport Limited as a potential applicant.

15.1.4. Accordingly, EIA is expected to continue by the potential applicant after the AoS is completed and will assess specific proposals arising from the plan, rather than the plan-level alternatives appraised through the AoS.

15.2. Proposed approach to the assessment

General approach

15.2.1. The AoS will provide a proportionate, strategic assessment of the environmental effects associated with expansion options at Heathrow Airport, reflecting the focused scope of the draft HENPS. The assessment will ensure that environmental considerations are integrated into the development of the draft HENPS from an early stage and that the implications of different Heathrow-based options are clearly and transparently presented to support informed decision-making.

Reasonable alternatives

15.2.2. In line with the SEA Regulations, the AoS will consider the likely significant environmental effects of reasonable alternatives for the HENPS.

15.2.3. Reasonable alternatives are expected to consist of different ways of delivering additional runway capacity at Heathrow Airport. These will focus on Heathrow-based expansion options, reflecting the Government's position that additional airport capacity should be provided at Heathrow and that alternatives elsewhere are outside the scope of the draft HENPS.

15.2.4. The Heathrow-based reasonable alternatives may differ in areas such as runway alignment, configuration, operational approach, construction methods and the scale or location of supporting infrastructure. These alternatives will be refined as the draft HENPS progresses.

15.2.5. Once finalised, the reasonable alternatives will be assessed against the AoS Framework (see **Chapter 14**) to ensure that environmental considerations are fully integrated into the draft HENPS.

15.2.6. Each alternative will first be appraised narratively against each AoS topic to describe its likely significant environmental effects. This qualitative assessment will be summarised in a comparative effects table, followed by a combined scoring matrix and narrative to provide an overall comparison of environmental performance.

15.2.7. The outcomes of the alternatives assessment will inform the development of the draft HENPS and support transparent, evidence-based decision-making.

Plan appraisal

15.2.8. In addition to the assessment of alternatives, the draft HENPS itself will be appraised against the AoS Framework. The AoS Report will also consider cumulative and in-combination effects, acknowledging that some impacts may be secondary, location-specific or dependent on future project-level detail.

15.2.9. Cumulative effects may arise where multiple developments or plan components, which individually may have negligible effects, combine to give rise to a significant effect. Cumulative effects may also occur where several different effects of the plan (for example noise, air quality, dust, or visual effects) interact over time or across locations. In the context of the AoS, cumulative effects may result from the combined influence of the draft HENPS and other policies, plans, programmes, and development proposals. A full review of plans and projects which have the potential to interact with the draft HENPS and lead to cumulative, synergistic and indirect effects will therefore be undertaken. This includes, where relevant, other development proposals that may interact with the plan spatially or temporally.

15.2.10. The AoS will also recognise where strategic policy directions in the draft HENPS may lead to indirect or downstream environmental effects at project level. While such impacts will be examined further through later consents processes (such as EIA), the AoS will identify these potential effects where relevant.

15.2.11. The assessment will remain flexible to respond to emerging detail in the draft HENPS, and draw on the findings of the range of evidence base studies that are being undertaken to support the development of the plan. Findings will be presented in the AoS Report, which will accompany the draft HENPS for consultation in 2026.

Mitigation, monitoring and enhancement

15.2.12. The AoS will identify opportunities to avoid or mitigate significant adverse effects and enhance positive effects. Potential mitigation and enhancement measures will be set out in the AoS Report.

15.2.13. Monitoring proposals will be developed using existing datasets, environmental indicators and statutory monitoring programmes. Recommendations will focus on monitoring significant environmental effects identified through the AoS and addressing key uncertainties or data gaps, including where mitigation or enhancement measures have been identified.

15.3. Consultation on the AoS scoping report

15.3.1. Public involvement through consultation is a key element of the AoS process. At this scoping stage, the SEA Regulations require consultation with statutory consultation bodies but not full consultation with the public.

15.3.2. The statutory consultation bodies are the Environment Agency, Historic England, and Natural England. This scoping report has been released to these three statutory consultees.

15.3.3. Consultees were invited to comment on the content of this scoping report, particularly the evidence base for the AoS, the identified key issues, and the proposed AoS Framework. Views on the following questions were sought:

- Are the objectives and deliverables of the AoS clear?
- Do you consider that all appropriate and relevant policies, plans, strategies (PPSs) have been identified (Scoping Report: Technical Annex)? Are there any other issues that have not been identified within the review of the PPSs that should be considered within the AoS?
- Do you consider that all appropriate and relevant baseline information has been identified (including that set out in the Scoping Report: Technical Annex)? Are there any other issues that have not been identified within the review of the baseline data in that should be considered within the AoS?

- Do you agree with the proposed AoS Framework presented?
- Is there anything else that needs to be taken into account in the AoS or do you have any other comments on the Scoping Report?

15.3.4. The consultation period ran from 04 March 2026 to 08 April 2026. Responses received have informed the final scope of the AoS and have been taken into account in preparing this updated version of the AoS Scoping Report. A summary of changes made as a result of the consultation is provided in **Appendix A** of the **Technical Annex**.