



Department
for Transport

AECOM

Habitats Regulations Assessment for the draft Heathrow Expansion National Policy Statement

Methodology

Department for Transport

June 2026

Quality information

Prepared by	Checked by	Verified by	Approved by
S.K. HRA Specialist	J.N. Associate HRA Specialist	J.R. Technical Director (HRA)	J.R. Technical Director (HRA)

Revision History

Revision	Revision date	Details	Name	Position
V1.0	January 2025	Initial version for client comment	J.R.	Technical Director
V1.1	June 2026	Minor amends ahead of publication	J.N.	Associate HRA Specialist

Prepared for:

Department for Transport

Prepared by:

AECOM Limited
3 Rivergate
Temple Quay
Bristol
BS1 6ER

© 2026 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited (“AECOM”) for sole use of our client (the “Client”) in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction.....	4
2.	Legislative background	6
3.	Methodology	9
4.	Review of 2018 HRA	14
5.	Next Steps.....	21

1. Introduction

1.1. Background

- 1.1.1. AECOM has been commissioned to undertake an independent Statement to Inform Habitats Regulations Assessment (HRA) in support of the review of the Airports National Policy Statement, which as part of the review has been renamed the Heathrow Expansion National Policy Statement (HENPS), for the Department for Transport (DfT).
- 1.1.2. DfT is responsible for setting national aviation policy, working with the aviation industry, including airlines, airports, the Civil Aviation Authority (CAA), and NATS (the UK's National Air Traffic Service). Aviation policy is crucial in supporting DfT's priorities to grow the economy, improve transport users' experience and reduce environmental impacts.
- 1.1.3. The Airports Commission (AC), chaired by Sir Howard Davies, was set up in November 2012 to undertake an independent examination of the scale and timing of any necessary steps to maintain the UK's status as a global hub for aviation. The Commission published its final report on 1 July 2015.
- 1.1.4. In December 2015, the Government made several decisions relating to airport capacity. The AC report concluded that the proposal for a Northwest Runway at Heathrow Airport, combined with a significant package of measures to address its environmental and community impacts, presented the strongest case for meeting additional capacity need.
- 1.1.5. The government accepted the AC's recommendation and decided that its preferred route to establishing a framework for future planning considerations is by using powers in the Planning Act 2008, and therefore it prepared the Airports National Policy Statement.
- 1.1.6. To support the Airports National Policy Statement, a Statement to Inform HRA was produced in 2018. This summarised the HRA screening process (Stage 1 of HRA) and set out the appropriate assessment (Stage 2 of HRA) and derogations (Stage 3 of HRA). Given the passage of time and current review of the Airports National Policy Statement, an updated HRA is being produced. The purpose of this document is to set out the methodology for that update and to review the 2018 HRA and identify areas where updates are required.
- 1.1.7. Please note this report is not intended to reflect any Government position on any proposed amends to the HENPS. At time of writing, no decision had been reached on the HENPS. Therefore, this report is without prejudice to the Government's ultimate decision.

1.2. The Project

- 1.2.1. The ability to move people and goods across the globe in a matter of hours is fundamental to the global economy. Airports themselves can make an important contribution to their local economies, being major employers in their own right and having the potential to attract companies whose business depends on air travel into their immediate proximity. Airports also contribute to quality of life, enabling people to travel abroad for leisure, broaden their horizons, or visit friends and relatives.
- 1.2.2. The Airports Commission's Final Report describes various negative environmental effects associated with aviation. Air travel makes a significant contribution to global greenhouse gas emissions, and this relative contribution is set to grow as other industries take steps to decarbonise. Other environmental impacts are more local in scope. Aircraft noise can cause considerable annoyance to the communities it affects, and there is a growing body of evidence regarding the impacts of aircraft noise on human health. Major new infrastructure developments can alter landscapes and affect natural habitats and cultural heritage. The challenge of getting passengers into and out of airports on the ground can also place stress on local transport networks, potentially leading to congestion and air-quality issues, in addition to those from aircraft.
- 1.2.3. The Airports Commission undertook a detailed review of the UK's aviation capacity and connectivity requirements, which was informed by the principles of the Strategic Environmental Assessment (SEA) Directive and by a series of discussions with key industry stakeholders. This included considering how demand for air travel in the UK was likely to develop across a range of future scenarios.
- 1.2.4. The Commission concluded that whilst London is well-connected, its airports are either at or close to capacity. Future demand forecasts (at that time) indicated that the London airport system would be full by 2040.
- 1.2.5. The Airports Commission looked at accommodating future demand through a variety of means, including measures to meet the UK's aviation capacity and connectivity needs without the provision of new runway infrastructure. These included measures to redistribute aviation demand to less congested airports and surface-access investment to replace the need for air movements. The Commission found that none of these options were effective in reducing the capacity shortfall and therefore, without the provision of new infrastructure, the London airport system would likely be under very substantial pressure in 2030, and demand would significantly exceed total available capacity by 2050.
- 1.2.6. Since the Airports NPS was designated, significant global, policy and legislative changes have taken place. New environmental and climate obligations have been introduced, patterns of travel have changed, and other airports have

received planning approval to expand. To ensure that the basis for decision making on development consent applications for a third runway at Heathrow Airport takes these changes into account, and aligns with the Government's four tests for Heathrow expansion on climate change, noise, air quality and economic growth across the country, the Government decided to review the current Airports NPS.

- 1.2.7. To help determine the approach to the review, the Government invited potential scheme promoters to submit proposals, to ensure the review could consider up to date Heathrow expansion proposals. Seven proposals were received and assessed. Following that assessment, two potential schemes remained under active consideration with a view to reaching a final decision on a single scheme to inform the Airports NPS review. On 25 November 2025 the Government decided that the Heathrow Northwest Runway scheme, brought forward by Heathrow Airport Limited, offered the most credible and deliverable option and would be the scheme to inform the Airports NPS review.
- 1.2.8. The review took into consideration the Airports NPS's uniqueness in being a site-specific national policy statement, and that the Government is not revisiting the appropriate location for additional runway capacity in the South East of England decided in the 2018 Airports NPS. Instead, the Government has considered whether there remains a strong case for expanding hub capacity at Heathrow, via the Heathrow Northwest Runway scheme, that it can meet its four tests and that the requirements it places on an applicant are robust and up to date.
- 1.2.9. In light of this, the Airports NPS has been renamed the Heathrow Expansion NPS (HENPS) to reflect that the document does not reconsider the strategic location of additional runway capacity, and to clarify that the document was, and continues, to have direct effect in relation to the provision of a Northwest Runway at Heathrow Airport only.
- 1.2.10. This information will be published as part of a public consultation on the outcome of the ANPS review in summer 2026.

2. Legislative background

2.1. Introduction

- 2.1.1. Under the Conservation of Habitats and Species Regulations 2017 (as amended) ("the 2017 Regulations") a 'competent authority' (in this case Department for Transport) before deciding to give any consent for a plan or project which is likely to have a significant effect on a European site, must make an appropriate assessment of the implications for the plan or project in view of that site's conservation objectives. The competent authority may agree to the plan or

project, only after having ascertained that it will not adversely affect the integrity of the European sites.

- 2.1.2. A European site is a Special Area of Conservation, Special Protection Area or (as a matter of policy and recent legislative changes) a Ramsar site. Special Areas of Conservation are sites designated for habitats or species other than birds that are particular conservation priorities at a European scale. Special Protection Areas are sites designated for birds that are particular conservation priorities at a European scale. Ramsar sites are wetlands of international importance.
- 2.1.3. The 2017 Regulations apply the precautionary principle to European Sites. If an adverse effect on integrity cannot be dismissed (taking account of the precautionary principle) then the plan or project can still be consented/adopted if three further tests can be passed, collectively known as derogations.
- 2.1.4. The term Habitats Regulations Assessment (HRA) refers to the comprehensive process outlined in the 2017 Regulations, encompassing screening for Likely Significant Effects through to imperative reasons of overriding public interest (IROPI). “Appropriate Assessment” refers only to that specific stage.
- 2.1.5. It is the responsibility of the competent authority to ensure that the relevant stages are completed and to make the formal decision as to whether an adverse effect on integrity will arise, and whether (if required) the derogation tests can be met. However, the competent authority is entitled to commission external assistance to undertake the technical assessments to inform their decision-making. That is AECOM’s role for the Airports National Policy Statement.

2.2. Key case law

- 2.2.1. The Statement to Inform HRA of the Airports NPS will be cognisant of a series of rulings from the Court of Justice of the European Union (CJEU), which have given added prominence to the task of the HRA.
- 2.2.2. Firstly, any conclusion of ‘no Likely Significant Effect’ (also known as HRA screening) must be made prior to consideration of any measures to avoid or reduce harm¹. The determination of Likely Significant Effects should not, in the eyes of the CJEU, constitute an attempt at detailed technical analysis and should not consider mitigation. That properly belongs in the appropriate assessment. There is some scope for including such measures at the HRA screening stage if they are integral to the project design or are being included not specifically to protect European sites but because they are required by unrelated legislation. For example, it is illegal to pollute watercourses under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015 and the Environmental Permitting (England and Wales) Regulations 2016.

¹ People Over Wind and Sweetman v Coillte Teoranta (C-323/17) [CURIA - List of results](#)

Therefore, mitigation measures to protect water quality are routinely included in projects to comply with this legislation, whether or not the waterbodies in question are part of, or connected to, European sites.

- 2.2.3. Secondly, the conclusions of an appropriate assessment must be ‘certain’ (which earlier case law has clarified to mean that ‘no reasonable scientific doubt remains’). At the same time, it is crucial to note that none of the 2018 rulings have involved a multi-stage planning process. While there must be no reasonable scientific doubt Advocate-General Kokott has also clarified² that ‘*It would hardly be proper to require a greater level of detail in preceding plans [rather than planning applications or Development Consent Orders] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure*’. Clearly, therefore, a balance must be achieved. This is discussed below in section 2.3 with regard to ‘tiering’ of HRA in a multi-tiered planning system.
- 2.2.4. Thirdly, the Holohan case³ has confirmed that an appropriate assessment must ensure that a) where interest features of an SAC or SPA are outside the European site boundary they must be taken into account (this is routinely done in the UK through consideration of functionally-linked land) and b) if there are habitats and species for which the site is not designated but which are essential to ensuring the site achieves its conservation objectives, these must also be covered in the appropriate assessment. Therefore, the HRA must not confine itself rigidly to the boundaries of European sites but must also consider impacts on land likely to be functionally linked to the European sites, where those sites are designated for mobile species.

2.3. Tiering of HRA

- 2.3.1. Advocate-General Kokott’s advice⁴ regarding tiering of HRA for a multi-tiered planning system as quoted in the previous section is central to the approach of tiering HRA. In other words, in a multi-tier planning system the HRA at each tier must be done at the level appropriate to that tier. HRA must acquire more detail

2 Opinion of Advocate-General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49.

<http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

3 Holohan et al vs. An Bord Pleanála (C-461/17)s

4 Opinion of Advocate-General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49.

<http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

as the planning system tiers are negotiated until the fullest level of detail is achieved at the Development Consent Order stage.

- 2.3.2. For a high-level plan such as the Airports NPS, the HRA will need to be suitably high level, reflecting the fact that the specific details of construction such as construction methods, timing and deployable mitigation measures, and refined noise and air quality modelling tailored to the details of the specific proposal for which planning permission is to be sought are not yet available. The HRA for the Airports NPS is therefore more precautionary than that at the Development Consent Order level. As a result, the fact an adverse effect on integrity cannot be dismissed for the NPS does not mean that following further work for the Development Consent Order it may not be possible to draw a different conclusion.
- 2.3.3. There is therefore a distinction between the level of detail required in a plan for it to pass the HRA tests, including the derogation tests if required, and that required for a subsequent Development Consent Order. This is because a plan is an intentionally higher-tier document that by design does not present all the details for a particular harmful proposal. In contrast, once planning permission is granted there is no further tier in the planning approval process. As such all matters regarding the derogations including compensation must be fully detailed at the time planning consent is granted.

3. Methodology

- 3.1.1. This section sets out the methodology that is proposed to be applied to the HRA up to appropriate assessment. The method draws upon general European Commission (EC) guidance on HRA⁵. Since the UK left the EU, HRA is required by virtue of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and follows government guidance regarding the HRA process published in 2021⁶.
- 3.1.2. The methodology also draws on that for the 2018 HRA report. Section 4 sets out a summary of the 2018 HRA report and what specific further or updated work is expected to be required for the report to inform the Habitats Regulations Assessment of the draft HENPS.

3.2. Likely Significant Effects (HRA Screening)

- 3.2.1. The first formal stage of any HRA is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is: Is the plan,

⁵ [Permitting procedure - Environment - European Commission](#)

⁶ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites (now referred to as Habitats sites)?

- 3.2.2. The objective is to 'screen out' those plans and projects (or elements thereof) that can, without any detailed appraisal, be concluded to be unlikely to result in significant adverse effects upon Habitats sites, usually because there is no mechanism for an adverse interaction. It also enables one to screen out those Habitats sites that will not be affected because, for example, they lie beyond the identified zones of influence of relevant impact pathways (see section 4.1 for Zones of Influence used in the Statement to Inform HRA for the 2018 Airports NPS).
- 3.2.3. The Likely Significant Effects (LSE) stage is a high-level analysis intended primarily to focus the rest of the assessment on those impact pathways which pose a credible pathway for effect on Habitats sites. Case law has established that, 'likely' really means 'possible' and a 'significant' effect is one where reasonable scientific doubt remains as to whether it would affect the ability of a Habitats site to achieve its conservation objectives. The assessment will explicitly reference the conservation objectives for each European site and also the Supplementary Advice on Conservation Objectives published by Natural England, most of which post-date the 2018 Statement to Inform HRA.

3.3. Appropriate Assessment (AA)

- 3.3.1. Since an appropriate assessment was undertaken in 2018, it will be required for the 2026 draft HENPS. Case law has established that appropriate assessment is not a technical term; it literally refers to whatever level of assessment is appropriate to form a conclusion regarding effects on the integrity (coherence of structure and function) of Habitats sites. As such, it has no pre-ordained methodology. The steps will be essentially identical to those of the Likely Significant Effects stage but will involve more detail, and the methodology will be tailored to the specific impacts requiring investigation and the interest features of the relevant Habitats sites.
- 3.3.2. The Appropriate Assessment will be presented as a subsequent series of chapters after the tables presenting the determination of likely significant effects. An appropriate assessment is best presented as a narrative (rather than in tabular format), allowing for a detailed explanation of the issues. The appropriate assessment is organised based on one chapter for each potential impact pathway as the same impact pathway applies to many European sites.
- 3.3.3. Given the limited information on construction methods and other details that will not be available until a Development Consent Order is developed, the appropriate assessment will be as detailed as possible, in line with Advocate-General Kokott's advice reported above, with recommendations for more detailed

future assessments as individual applications are developed. Each assessment of a potential impact pathway will be broad, discussing the scientific understanding of the potential impact.

3.4. Mitigations

This will be the mitigation options that could be implemented at the project level, to demonstrate that it should be possible to mitigate or avoid impacts through detailed design or specific techniques.

3.5. In-combination Assessment

- 3.5.1. It is a requirement of Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) to not only assess the impacts of a development project alone, but also to investigate whether there might be ‘in-combination’ effects with other projects or plans. In practice, such an ‘in-combination’ assessment is of greatest relevance when an impact pathway relating to a project would otherwise be screened out because it is considered not to result in LSEs.
- 3.5.2. This HRA report will therefore consider the in-combination effects within the context of potential for significant effects on Habitats sites. Checks for proposed and approved projects dealt with by competent authorities will be undertaken to assess whether other projects in-combination have potential to result in significant effect on any Habitats sites. Major developments, such as Nationally Significant Infrastructure Projects, would be identified via the Planning Inspectorate portal.

3.6. Derogations

- 3.6.1. In certain circumstances, a plan-making authority/competent authority can adopt a plan, notwithstanding the fact that the AA concludes it will have adverse effects on the integrity of a Habitats site. This is known as a derogation. Derogations were required for the 2018 ANPS, and whilst any requirement for derogations in respect of the draft HENPS cannot be assumed on the basis of previous assessments, an updated derogations assessment has been deemed necessary for the draft HENPS based on the Appropriate Assessment and proposed mitigation. e A plan must pass each of the following three sequential legal tests for a derogation to be granted:
- There are no feasible alternative solutions that would be less damaging to the Habitats site while still meeting the objective of the plan or proposal.
 - The proposal needs to be carried out for imperative reasons of overriding public interest.
 - The necessary compensatory measures can be secured.

- 3.6.2. Since the tests are sequential, a project or plan that cannot meet a given test fails the derogations and therefore does not progress to the later tests.
- 3.6.3. There is a distinction between the level of detail required in a plan for it to pass the derogation tests, and that required for a subsequent Development Consent Order. A plan is an intentionally higher-tier document that by design does not present all the details for a particular proposal, or all the investigation work that will be developed as detailed design proceeds.
- 3.6.4. It leaves flexibility for design of a subsequent Development Consent Order including as regards avoidance, mitigation and compensation of adverse effects on a Habitats site. In contrast, once a Development Consent is made there is no further tier in the planning approval process other than discharge of conditions. As such all matters regarding the derogations including compensation must be fully detailed at the time planning consent is granted.
- 3.6.5. At the plan-making stage, the decision maker must be satisfied that the derogation tests are met at the strategic plan level and are capable of being met at the project level. In light of this, the duty on DfT as the Competent Authority for this plan is to be satisfied that, the derogations tests have been adequately appraised, and where necessary, compensation is achievable in principle and likely to be achievable and effective in practice.

Test 1 Consider alternative solutions

- 3.6.6. To allow a derogation the plan making authority must decide that there is no alternative solution that would be less damaging to the site while still meeting the objective of the plan. The plan making authority should consider whether the proposal could:
- be delivered at a different location
 - use different routes across a site
 - change its scale, size, design, method or timing
- 3.6.7. To constitute a genuine alternative solution, the alternative must:
- achieve the same overall objective as the original proposal
 - be financially, legally and technically feasible
 - be less damaging to the relevant Habitats site and not have an adverse effect on the integrity of any other Habitats site
- 3.6.8. If there are, or appear to be, one or more alternative solutions, the plan making authority cannot include the original proposal within the plan. In those circumstances, there is no need to do test 2 or test 3.

- 3.6.9. If there are no alternative solutions, the proposal passes test 1 and the plan making authority can move to test 2.

Test 2: Consider imperative reasons of overriding public interest

- 3.6.10. If there are no feasible alternative solutions, the plan making authority must next be able to show that there are imperative reasons of overriding public interest (IROPI) why the proposal must go ahead. The plan making authority must decide if the need for the proposal is:
- imperative - it is essential that it proceeds
 - in the public interest – it delivers a public interest benefit, not just benefits for private interests
 - overriding - the imperative public interest outweighs the harm, or risk of harm, to the integrity of the Habitats site that is predicted by the appropriate assessment.
- 3.6.11. According to government guidance⁷, plans or projects that only provide short-term or very localised benefits are less likely to be able to show imperative reasons of overriding public interest than more strategic plans or projects.
- 3.6.12. Some of the designated habitats and species of SACs are Europe-wide 'priority habitats' in danger of disappearance, as defined in the Habitats Directive. Where such priority habitats are at play, there is a stricter test applied at the IROPI stage.

Test 3: Compensatory measures

- 3.6.13. If there are no feasible alternative solutions and the plan making authority has shown that there are imperative reasons of overriding public interest, it is necessary to make sure that suitable compensatory measures are capable of being secured at the Development Consent Order stage. Such measures will need to fully offset the harm to coherence of structure and function (effect on integrity) which will or could be caused to the site.
- 3.6.14. Regarding derogations, the focus at the plan-making stage is to ensure that there is scope for suitable compensatory provision. This includes regarding its scale, its technical feasibility, and the likelihood that adequate areas for compensation can be identified. The precise details of the specific compensation parcels to be secured, and technical matters such as landowner agreements, are deferred to the individual scheme (Development Consent Order) level.

⁷ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site#derogation>

- 3.6.15. The derogations stage of the NPS HRA report will therefore seek to explore whether a sufficient framework exists to ensure that suitable compensation is capable of being delivered when and where it is needed, and that there is a high degree of confidence that sufficient land in appropriate places will be available for the compensation to be delivered.
- 3.6.16. Following public consultation, the derogations documentation will be finalised and submitted to the 'appropriate authority' (the relevant Secretary of State) in line with Regulation 107 of the Habitats Regulations, which provides that the appropriate authority has 21 days to prohibit adoption of the plan, based on the derogation materials. The appropriate authority may do this either indefinitely or during such period as may be specified in the direction.

4. Review of 2018 HRA

4.1. HRA screening

- 4.1.1. The 2018 Statement to Inform HRA reported an initial HRA screening of the preferred scheme for the NPS (Heathrow Airport North Runway (dubbed LHR-NRW)). This used a search area of:
- 15 km for identification of Habitats sites
 - 22 km for SPAs designated for pink footed goose (based on the distance used by Natural England in their Aviation Sensitivity Maps)
 - 30 km from the option boundary for SACs which list bats as a qualifying feature. The 30 km zone drew on guidance from Design Manual for Roads and Bridges.
- 4.1.2. The screening identified that likely significant effects from LHR-NRW could not be dismissed for eight Habitats sites:
- South West London Waterbodies SPA
 - South West London Waterbodies Ramsar site
 - Windsor Forest & Great Park SAC
 - Richmond Park SAC
 - Burnham Beeches SAC
 - Thursley, Ash, Pirbright & Chobham SAC
 - Thames Basin Heaths SPA

- Wimbledon Common SAC

- 4.1.3. For most of these sites the only relevant identified impact pathway was air quality, both from aircraft emissions and particularly from road traffic emissions. For South West London Waterbodies SPA/Ramsar, likely significant effects also could not be dismissed for the impact pathways of disturbance, habitat loss, hydrological changes and operational management.
- 4.1.4. The screening decisions will be reviewed for the draft HENPS, but it is currently considered likely that the screening decisions will not change.

4.2. Appropriate Assessment

Disturbance

- 4.2.1. The 2018 Statement to Inform HRA considered visual (including lighting) and noise impacts on South West London Waterbodies SPA/Ramsar site, during construction and operation of LHR-NRW, under the heading 'disturbance'. A temporary change in recreational pressure in the context of airport expansion during the construction phase was also considered, due to the influx of a temporary work force.
- 4.2.2. The assessment reviewed Wetland Bird Survey (WeBS) peak counts of gadwall and shoveler for 2010/11 to 2014/15, and the accessibility of the various components of South West London Waterbodies SPA/Ramsar. It also reviewed the same data for functionally-linked waterbodies identified in Brian Briggs 2007 doctoral thesis⁸. The Briggs thesis is understood to still be the most recent comprehensive assessment of the shoveler and gadwall populations in the various South West London Waterbodies, so will continue to be used as a key reference for the 2026 HRA, although WeBS records will be updated to the most recent five-year period. The 2018 assessment also presented a literature review of noise and visual disturbance of wintering waterfowl, including from airports and aircraft. This will be updated for the 2026 HRA to account for any key new research papers.
- 4.2.3. The 2018 HRA concludes that there is no evidence to indicate that the existing airport operations at Heathrow Airport result in adverse disturbance effects to the South West London Waterbodies SPA/Ramsar. It also considers it reasonably likely that there would be some habituation with the restriction of regular construction noise to below 70 dB LAeq and with the avoidance of, sudden irregular noise above 50 dB LAeq. The reference to this threshold will be reviewed as part of the 2026 HRA as it is understood that Natural England are more cautious about accepting 70 dB LAeq as a blanket threshold for

⁸ Briggs, B., 2007. The use of waterbodies in South-West London by Gadwall and Shoveler; implications for nature conservation. University of Oxford Department of Zoology: Oxford.

disturbance. On recent projects AECOM has agreed with Natural England the use of a more precautionary 60 dB threshold (i.e. half as loud as 70 dB) on the basis that this is a 5 dB change above an agreed 'no effect' level of 55 dB.

- 4.2.4. The 2018 HRA also identifies that mitigation should consider the timing of flights, flight paths, and flight heights over the waterbodies. Where feasible this measure could effectively remove operational disturbance. Whilst it is recognised that it may not be operationally viable to implement, this measure should be explored fully at the detailed design stage. In addition, Briggs identified a number of measures that would result in benefits to the SPA. This included the development of a 'London Basin Waterfowl Strategy'. This strategy would have the aim of protecting waterfowl on all waterbodies in the SW London area. The strategy would seek to reduce site vulnerabilities and contribute towards the achievement of the site's conservation objectives. The 2018 HRA identifies this could also be an effective measure to improve general resilience of the SPA/Ramsar site to disturbance. These measures at a broad scale are still likely to be appropriate.
- 4.2.5. However, the 2018 HRA also concludes that given the uncertainty surrounding flight paths and flight heights at this time, and perhaps even more so, a general lack of broader scientific understanding of the effects of aviation disturbance to waterbirds, the precautionary principle requires the assumption that any further disturbance effects would be likely to result in cumulative disturbance to the interest features of the site. As such an adverse effect on the SPA/Ramsar integrity cannot be ruled out.

Operational management

- 4.2.6. To assess this, the 2018 Statement to inform HRA draws on a bird strike report prepared for the London Heathrow and Gatwick Airport Expansions⁹. As it relates to Heathrow, this report is considered still to be up-to-date and relevant and will therefore be reused for the 2026 HRA. The Birdstrike Risk Report suggests that the overall strike rate at Heathrow per 10,000 aircraft movements is low compared to other airports in the UK and to other large international airports around the world.
- 4.2.7. The 2018 HRA discusses numerous bird species including gulls, although the SPA/Ramsar species (gadwall and shoveler) are not specifically discussed. The 2026 HRA will therefore seek to relate the assessment more to the SPA/Ramsar species. The 2018 HRA ultimately concludes that mitigation of birdstrike will be required; Any such measures that involves large scale bird dispersal from the reservoir has the potential to adversely impact on non-hazardous birds of

⁹ Birdstrike Risk, Needs for Management, and Associated Biodiversity Impacts for Proposed Additional Runways at London Heathrow and London Gatwick Airports.

conservation concern (including the SPA interest features) that currently use the site.

- 4.2.8. The 2018 HRA nonetheless concludes that bird control measures could result in adverse effects through species displacement both within the site and areas beyond the site. It may also result in fragmentation, increased competition within the site and areas beyond the site, increased pressure on habitats within the site and areas beyond the site, increased energetic use leading to reduced breeding success and potentially, also mortality.
- 4.2.9. Mitigation has been cited through LHR-NWR containing a commitment to compensation for lost habitat (unrelated, at this stage, to the potential need to mitigate or compensate for adverse effects on Habitats sites). There is also a commitment to improve existing habitat for wildlife, creation of new habitat and development of outdoor leisure opportunities around the airport. The proposals include, amongst other habitats, the creation of wetlands, flood meadows, woodland, open water and marginal habitats. All these areas have the potential to attract hazardous birds to the area or to change the behaviour patterns of birds that are already present and thus create an additional birdstrike risk.
- 4.2.10. As a result, the HRA ultimately concludes that given the uncertainty surrounding flight paths of birds and flight heights of aeroplanes, the precautionary principle requires that the compensation proposals proposed by the promoters would conflict with birdstrike management. The corresponding need for increased bird management has the potential to disturb non-target species including the interest features of the SPA. Such additional disturbance effects would be likely to result in cumulative disturbance to the interest features of the site and as such an adverse effect to the site's integrity cannot be ruled out at this stage albeit that this may be possible to do at the project stage.

Loss of habitat

- 4.2.11. The 2018 HRA noted that surface access proposals for LHR-NWR may involve land take and disturbance in the southern area of the proposal, primarily along the existing M25 motorway corridor. There is potential for surface access routes to overlap with the boundaries of sites that include SSSI components of the SPA and other potential functionally linked habitat. Applying a buffer zone of 100m as a potential area of impact around the proposed surface access routes has identified some potential overlap with the boundaries of sites that include Staines Moor SSSI and Wraysbury Reservoir SSSI (and therefore the SW London Waterbodies SPA).
- 4.2.12. The 2018 HRA considered it reasonably likely that at the detailed design stage, impacts from LHR-NWR could reasonably be avoided through a review of the detailed alignment that avoids encroachment into the designated sites or

functionally linked habitats. This, together with the construction methods to be used could be planned to avoid land take adjacent to or within the SPA.

- 4.2.13. However, at this plan stage it was considered not possible to exclude the likelihood of adverse effects given that more detailed project design information, and detailed proposals for mitigation, is not presently available. Such project detail would need to be reviewed against a baseline assessment at the SPA/Ramsar.

Air quality

- 4.2.14. The 2018 HRA drew upon an air quality assessment module for the proposed LHR–NWR that considered the total mass emissions of key pollutants associated with airport activity. The assessment considered the following main categories of sources from the shortlisted schemes:
- Airport related road transport ‘Surface Access’ (vehicle access including car parking);
 - Airport activities (such as aircraft movements, heat & power generation);
 - Non-Airport related road transport ‘Surface Access’ (vehicles on the surrounding roads); and
 - Other emissions (such as industry and energy production).
- 4.2.15. The 2018 assessment considered the above-described emission sources within a 2 km ‘local study area’ for airport emissions and within a 15 km buffer applied around the scheme for surface access impacts where increases in traffic on roads within 200 m of Habitats sites may be expected. These distances are considered appropriate and will be reused. However, several elements of air quality assessment, particularly for traffic, have changed since 2018 including updated vehicle emission factors and the consideration of ammonia emissions from traffic. The need to update traffic and air quality work, and the appropriate split in level of investigation between National Policy Statement and Development Consent Order is currently being explored. We would appreciate any advice Natural England may give on this matter.
- 4.2.16. Critical level thresholds for ammonia and NO_x have not changed since 2018¹⁰. However, critical loads for nitrogen deposition have been updated so this will be acknowledged in the 2026 HRA. Background nitrogen deposition rates and

¹⁰ Air Pollution Information Systems (APIS), 2016. ‘Site Relevant Critical Loads’ Tool.

pollutant concentrations have also changed since 2018 (generally improved)¹¹, so these will also be updated for the 2026 HRA.

- 4.2.17. Note that the 2018 HRA does not present a detailed air quality assessment as this will need to be undertaken for a Development Consent Order, but the 2026 HRA will update the existing references to pollution concentrations and deposition rates where required.
- 4.2.18. Ultimately the 2018 HRA concludes that in the absence of evidence to the contrary, and in accordance with the Precautionary Principle, it is considered that at this stage it cannot be ruled out that there will be an increase in traffic at these roads and that corresponding air quality impacts will act cumulatively and in-combination and result in adverse effects on the integrity of Habitats sites. It is therefore taken forward to derogation.

Water quality and quantity

- 4.2.19. The 2018 HRA takes account of a Biodiversity Assessment¹², which identified that the construction and operation of the shortlisted schemes may result in impacts on the local water environment. Relevant activities identified are as follows:
- The diversion and culverting of several watercourses;
 - Increases in the risk of contaminants during construction and operation (for example through the use of de-icing fluid);
 - Potential changes to flow as a result of flooding; and
 - Should additional abstraction and discharge occur from increased water demand, there is the potential for additional impacts on flow.
- 4.2.20. The AC's Water Quantity and Quality Assessment has identified that the majority of the water bodies in the ZoI of the LHR–NWR are classified as Artificial/Heavily Modified Water Bodies (A/HMWB) currently not achieving Good Ecological Status in accordance with the objectives of the Water framework Directive. While the baseline conditions will have changed, the assessment of activities and potential impacts on Habitats sites (South West London Waterbodies SPA/Ramsar) is still considered to be relevant.
- 4.2.21. The 2018 HRA concludes that none of the watercourses that will be impacted upon by LHR-NWR directly feed the SPA (the reservoir water is abstracted from the Thames). In addition, functionally linked habitats are only likely to be

¹¹ Air Pollution Information Systems (APIS), 2016. 'Site Relevant Critical Loads' Tool.

¹² Biodiversity: Baseline

indirectly associated with those waterbodies requiring diversion (i.e. during flood events or via ground water).

- 4.2.22. However, it considers further investigation as to the likelihood that impacts will arise to habitats utilised by interest features as well as the effects of any changes to both the quality and quantity of water on the interest features will be necessary at the project-level HRA once further details are available. The report concludes it is likely that mitigation can be introduced to reduce the significance of, or entirely avoid, impacts; however, given the Precautionary Principle it is considered that adverse effects on the integrity of the Habitats sites cannot at this stage be ruled out. The impact pathway is therefore taken forward to derogations.

4.3. Derogations

- 4.3.1. The 2018 HRA concludes that only an assessment at the project stage supported by detailed data at project level will allow it to be determined whether the development of LHR-NWR could be undertaken without adversely affecting the integrity of Habitats Sites. Only at the project level HRA, with site specific supporting survey data, can a conclusion of no adverse effect on Habitat site integrity therefore be made with any confidence.
- 4.3.2. Accordingly, consideration was given to the tests of whether alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures are available under Article 6(4) of the Habitats Directive. The assessment of alternative solutions considered whether there are any feasible ways to deliver the overall objectives of the proposed plan, which will be less damaging to the integrity of the Habitats sites affected. The two other schemes shortlisted by the Airports Commission were considered against the objectives of the plan in relation to meeting the need to increase airport capacity in the South East and maintaining the UK's hub status. Whilst the Heathrow Extended Northern Runway scheme (LHR-ENR) would meet both of these objectives, the Gatwick Second Runway scheme (LGW-2R) would not. The assessment of the LHR-ENR scheme shows it would be no less damaging to Habitats sites and as such is not an alternative solution.
- 4.3.3. Notwithstanding the conclusion above, the AA undertaken for the two other shortlisted schemes also led to no suitable alternative solutions to LHR-NWR being identified. Further, the basis on which it could be concluded that the LHR-NWR scheme needed to be carried out for IROPI has been examined and it is considered that the needs case underpinning the Airports NPS sufficiently fulfils those reasons. In any event, the Airports NPS provides that no consent will be granted unless there is full compliance with Article 6(3) or Article 6(4) of the Habitats Directive and that any necessary compensatory measures will be secured in accordance with Regulation 66.

- 4.3.4. Regarding compensatory measures, the 2018 HRA concludes that given the strategic nature of the HRA process for this NPS, the inherent uncertainties of the AA conclusions, and the potential changes that may occur as the plan is implemented, it is not possible at this stage to specify the precise nature or location of any compensation measures that might be required. The role of the plan is, therefore, described as providing a robust framework that sets out the broad parameters for compensation measures, should they be required following the more detailed site level assessments undertaken for plan implementation.
- 4.3.5. While the derogations case will be reviewed, it is currently considered that the derogations case presented in the 2018 HRA will still be relevant and can be reused for the 2026 HRA.

5. Next Steps

- 5.1.1. AECOM and DfT are seeking Natural England's feedback on this HRA methodology document, with a view to a) whether Natural England is content with the methodology proposed and b) whether Natural England is content with the proposals to retain or update the specified parts of the 2018 HRA as set out in Section 4.

