



Department
for Environment
Food & Rural Affairs

Defra's 2024 Habitats Regulations Assessment (HRA) and decision to issue general licence GL45

Licence to release common pheasants or red-legged partridges on specified special protection areas or within 500m of their boundary

March 2024

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Executive summary

This Habitats Regulations Assessment (HRA) provides an assessment of the potential risk and impacts of issuing General Licence 45 (GL45) for the release of gamebirds (common pheasants and red-legged partridge) onto or within the 500m buffer zones of specified special protection areas (SPAs) in England. This document provides an assessment of the suitability of SPAs, for which there are known gamebird releases, to be included in GL45 for the release of gamebirds in 2024 under two Highly Pathogenic Avian Influenza H5N1 (HPAI) HPAIV risk scenarios: low and medium. This assessment considers the impact and transmission risk of HPAIV to wild birds from released gamebirds. Assessments of broader impacts of gamebird releases on SPAs have been made in previous HRAs to determine the effect of gamebird release under GL43. The national HPAIV risk in wild birds is currently assessed as medium (i.e., the event occurs regularly). If the national risk level returns to 'high', then Defra will revert to a fully individual licensing process for 2024 gamebird releases.

There are 87 SPAs in England, which are designated for the protection of site-specific bird species. This HRA focuses on the 31 SPAs for which Defra received individual licence applications for gamebird release in 2023. Twelve of these SPAs are designated for breeding features only and 19 SPAs include designations for non-breeding (i.e., overwintering) features. These 31 sites are considered for inclusion in a GL under a medium risk scenario (see Parts C and D) on the basis that mitigating conditions can be applied to reduce the risk of contact and transmission between gamebirds and protected wild birds. The suitability of SPAs for inclusion in GL45 is considered in light of the potential for any adverse effects on site integrity as a result of HPAIV transmission following gamebird release. We propose and assess two General Licence options, which are designed to be issued under either a medium or low national HPAIV risk in wild birds scenario, and which are based upon the GL43 licence, as outlined below:

- GL43 - this licence is currently in use and valid from 31 May 2023 to 30 May 2025. It allows an authorised person to release a specified density of gamebirds onto a Special Area of Conservation (SAC) in England or within its 500m buffer zone. The release of gamebirds onto SPAs or within 500m of their boundaries is not permitted under GL43 for the 2023 and 2024 release seasons.
- GL45a - this licence is proposed under a medium national HPAIV risk in wild birds scenario and allows an authorised person to release a specified density of gamebirds onto permitted SPAs in England or within their 500m buffer zones. The licence will include conditions such as mandatory biosecurity measures and delayed release dates (among others), which will mitigate the risk of HPAIV transmission from released gamebirds the qualifying features of the site. There will be the option to apply for an individual licence for releases on SPAs not listed in this licence or where applicants wish to deviate from the conditions of the GL.
- GL45b - this licence is proposed under a low national HPAIV risk in wild birds scenario. This licence allows an authorised person to release a specified density of gamebirds onto any SPA in England or within their 500m buffer zones.

Conditions will include mandatory biosecurity measures. Delayed release dates would not be necessary and therefore will not be included.

The appropriate assessment of this HRA (Part D) currently concludes that the inclusion of 30 of these 31 SPAs in GL45 (two of which have additional site-specific conditions) will not have an adverse effect on site integrity under a medium risk scenario. This is owing to the risk assessment for each site and the inclusion of mandatory biosecurity measures and (in some cases) site-specific delayed release dates. One SPA could not be included in GL45 under a medium risk scenario as an adverse effect of gamebird release under a GL on site integrity could not be ruled out. The risk from HPAIV will be monitored and reviewed over the licence period. Subject to any new evidence, our conclusions on site integrity may be amended accordingly, and the list of SPAs included on GL45 may also be amended.

Introduction

This document is the Defra 2024 HRA and decision, informed by the appropriate assessment (Part D) and statutory nature conservation advice, under Regulation 63 of the Conservation of Habitats and Species Regulations (2017), also known as the 2024 HRA. Defra is the competent authority in issuing a new interim general licence for the release of common pheasant (CP) and red-legged (RLP) (collectively referred to as 'gamebirds' for the purposes of this HRA) onto certain SPA sites in England or within 500m of their boundaries. The new interim general licence is referred to as GL45.

This 2024 HRA is informed by Defra's 2023 HRA (Defra 2023) detailing the Secretary of State's decision re the issuing of the 2023 interim general licence (GL43) to release gamebirds on certain European sites (SACs) or within 500m of their boundaries.

Decision in relation to the protection of the designated avian species of special protection areas (SPAs) in England

This assessment considers new information relating to the risk of adverse impacts of HPAIV being transmitted to SPA populations of protected wild birds by released gamebirds and advice on this risk from Natural England (NE).

Giving significant weight to the advice of the statutory nature conservation body in 2023, Defra made the decision not to include releases of gamebirds on sites designated as SPAs, or within 500m of their boundaries, within the scope of GL43 for the 2023 and 2024 gamebird release seasons. As such, GL43 only authorised the release of a specified density of gamebirds on SACs, or within 500m of their boundaries. Those wishing to release gamebirds on SPAs or within 500m of the boundaries of SPAs were required to apply for an individual licence from Defra instead of operating under GL43. This also included release locations on land designated as both a SAC and a SPA.

The 2023 statutory nature conservation advice was informed by the Defra/Animal and Plant Health Agency (APHA) January 2022 outbreak assessment (Defra 2022a) that determined the national HPAIV risk to wild birds from released, formerly captive gamebirds in Great Britain to be 'very high' (i.e., disease transmission will occur almost certainly). At the time Defra received the shadow HRA (sHRA) addendum in January 2023 (Natural England 2023), 162 cases of HPAIV had been confirmed in the UK (in poultry and other captive birds) since 1 October 2022 and 278 cases in England since the outbreak started in October 2021. Some of these kept bird cases were geographically close to mass mortality events in wild birds, including the mass mortality of breeding seabirds at multiple coastal sites (including some UK SPAs). Wild bird detections were also comparatively high in this period (see Figure 1). On 14 February 2024 HPAIV was confirmed in commercial poultry in East Yorkshire. A 3km protection zone and 10km surveillance zone was declared around the premises. UK HPAIV disease control zones can be viewed here and further information on disease control zones can be found online (Defra 2021).

National risk levels are based on Defra's own wild bird surveillance, as well as the international situation, particularly regarding HPAIV, for example, in France, Netherlands, Germany and Denmark, which are still reporting cases and outbreaks.

On 15 March 2023, Defra lowered the national HPAIV risk in wild birds level from very high to high (i.e. the event occurs very often). On 1 November 2023, Defra then lowered the national HPAIV risk in wild birds level from high to medium (records available online, see Defra and APHA 2016). It has been maintained at medium to date and it is on the basis of the reduction in the national HPAIV risk in wild birds and substantially fewer detections in wild birds in 2023 (see Figure 1) that Defra proposes the issuing of a General Licence for gamebird release on certain SPAs for the 2024 gamebird release season can be considered. Defra has assessed whether releases of gamebirds on some SPAs and/or within 500m of the boundaries of some SPAs can be considered given this substantial reduction in risk (i.e., from 'very high' (in winter 2022) to 'medium'), and given we have additional information available regarding the benefit of potential actions that can be taken at a shoot level to mitigate risk. Where appropriate, GL45 will authorise the release of a specified density of gamebirds on certain named SPAs and/or within 500m of their boundaries. Those wishing to release gamebirds on SPAs and/or within 500m of the boundaries of SPAs not named in GL45, or those wishing to deviate from conditions specified in GL45, will have the option to apply for an individual licence from Defra. Regarding sites designated as both SPAs and SACs, releases on SACs that are also designated as SPAs will be covered by GL45, assuming there was an application for that site in 2023. Individual licences will be required for releases on SACs that are also designated as SPAs if there were no applications for that site in 2023 and will, therefore, not be listed in GL45.

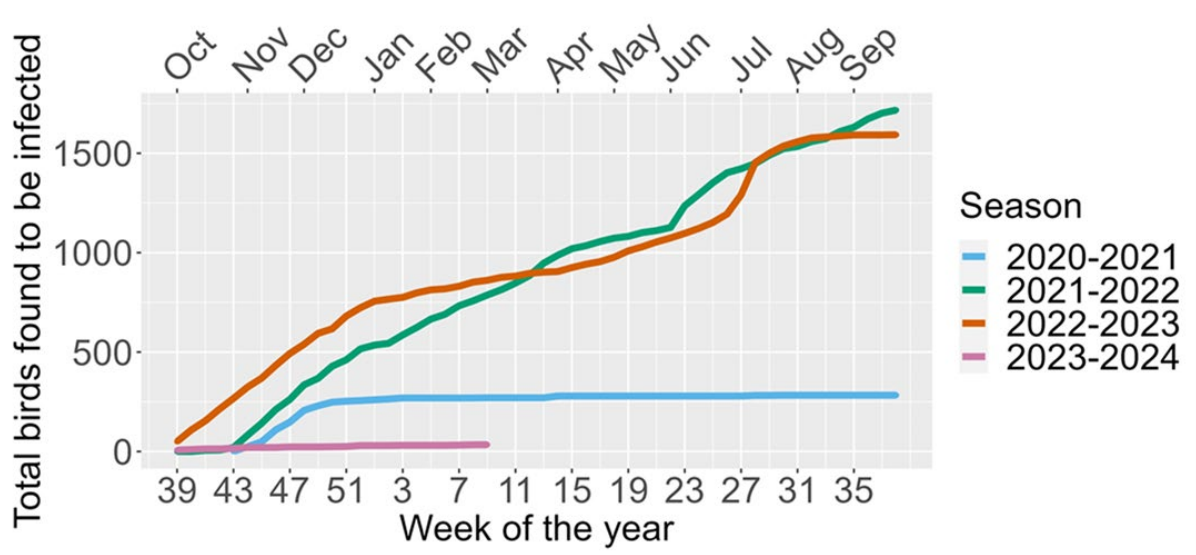


Figure 1: Graph showing wild bird detections from 26/10/2020 to 27/02/2024, illustrating substantially fewer detections in 2023-2024 to date. Note that year on year comparisons should be undertaken with caution as data is based on citizen science and thresholds for collection change during the year.

The new GL45 will be valid from 31 May 2024 to 1 Feb 2025. Given the changing status of the national HPAIV risk in wild birds, Defra will keep this risk under review, alongside all available evidence, throughout the lifetime of this licence. SoS may revoke or modify GL45 accordingly. As such, Defra has also considered how GL45 might be modified in response to assessment of a 'low' (i.e., event is rare but does occur) national risk level (see Annex A). If the national risk level returns to 'high', then Defra will revert to a fully individual licensing process for 2024 gamebird releases, as described in the 2023 HRA (Defra 2023). The national risk level is continually reviewed by the APHA and the UK Chief Veterinary Office.

Methodology and use of evidence

In preparing the 2023 sHRA addendum (Natural England 2023) and statutory advice (Holmes 2023), NE made use of the 2022 qualitative risk assessment (QRA) (Defra 2022a) on the spread of avian influenza from released CP in Great Britain. The QRA was commissioned by Defra, the Welsh Government, and the Scottish Government. It was undertaken by the Animal and Plant Health Authority (APHA) and provides an assessment of the risks associated with avian influenza transmission by CP in July to August 2022 considering a medium risk of HPAIV to wild birds scenario.

To assess the impact on SPAs in 2024, Defra have given consideration to NE's 2021 sHRA (Natural England 2021), the 2022 QRA (Defra 2022a), NE's January 2023 sHRA addendum (Natural England 2023), Defra's 2022 (Defra 2022b) and 2023 HRAs (Defra 2023), and the Gamebird-Wild Bird Risk Assessment Tool (GWRAT) (Defra 2024). Defra has also considered SPA-specific expert advice provided during the 2023 individual licensing assessment process by NE, Defra's Expert Panel, and the Game and Wildlife Conservation Trust (GWCT). NE's expert advice was provided in the form of a written

'technical assessment' (aka 'licence advice record') for each individual licence application in 2023 and provided a detail assessment of potential impacts of gamebird releases on SPA features. Defra's Expert Panel was composed of Defra staff with ornithological and exotic disease expertise who met regularly and provided comments on each individual licence application in 2023 (recorded as a meeting note). GWCT advice was provided (both written and verbal) on 2023 individual licence applications that NE had recommended either for refusal or approval under complex conditions. Additional information on SPA protected species obtained from the British Trust for Ornithology (BTO 2024), RSPB, and NE has also been considered. The evidence informing the consideration of each SPA is set out in Part D. Defra has reviewed these assessments, the available evidence, and new information to assess the following points:

- the HPAIV transmission risks from gamebirds to protected wild birds associated with pheasant releases during summer 2024
- the HPAIV transmission risks from gamebirds to protected wild birds associated with RLP releases during summer 2024
- the risk of 'bridging species' to transmit HPAIV from gamebirds to protected wild birds more widely during summer 2024
- the effectiveness and feasibility of mitigating conditions to reduce these transmission risks

The HPAIV transmission risk pathway is detailed in Part D sections on mandatory biosecurity measures veterinary checks/testing requirements. Broadly, transmission between gamebirds and protected wild birds can occur directly (via beak-to-beak contact between live birds or via predation of live birds/scavenging of carcasses) and indirectly (via environmental contamination and range overlap between gamebirds and protected wild birds, or via bridging species that may come into direct and/or indirect contact with both gamebirds and protected wild birds). Variables along the various transmission pathways have been assessed, and suitable management conditions identified, based on existing biosecurity advice (Defra 2022c) and expert input, that will feasibly and effectively interrupt these pathways. For example, pre-release testing, and health checks of gamebirds will identify animals potentially infected with HPAIV, thereby reducing the risk of introducing an infectious gamebird onto the site and thereby reducing the likelihood of both direct and indirect transmission to protected wild birds. Cleaning of feeding and watering stations will reduce the risk of indirect transmission via environmental contamination through removal of potentially HPAIV-contaminated faecal matter. Delayed releases will prevent gamebirds and protected wild birds occupying the SPA/buffer at the same time, thereby reducing the risk of both direct and indirect transmission. In providing appropriate mitigation against direct and indirect HPAIV transmission risks we can reduce the risk of HPAIV transmission between gamebirds and protected wild birds and reduce the likelihood of adverse effects on the conservation objectives and consequently the integrity of the SPAs concerned.

The Gamebird-Wild Bird Risk Assessment Tool

The GWRAT has been adapted from the International Disease Monitoring tool for risk of incursion (IDM tool) to consider the likely presence of HPAI H5N1 across England at

county level, the potential for spread into released gamebirds, and the exposure to SPA qualifying feature species and is used to provide a comparative score between different sites for the likely exposure of the SPA feature species (Defra 2024). This indicative tool forms part of the evidence base informing SPA-specific HPAIV risk determinations and decisions regarding effects on site integrity. We recognise a degree of uncertainty relating to the transmission of HPAIV between gamebirds and wild birds. There is not yet a methodology available which is sufficiently developed to be treated as reliable. The GWRAT has been developed to address this knowledge gap, but it is a novel tool, albeit using accepted published methodology, and a precautionary approach has been taken regarding its application to the appropriate assessment (Part D, section 8.2.6).

The GWRAT uses records of recent occurrences of HPAIV in the counties of England to estimate the current background risk in each SPA (inclusive of the buffer zone). The tool uses this background risk, the number of gamebirds applied for release in 2023, and the broad groupings of species features (i.e., reservoir species, spill-over species, and bird of prey species) to estimate the risk gamebird releases pose to the SPA conservation objectives (via impacts on qualifying species). The tool uses the number of gamebirds applied for release rather than the number licenced for release in 2023 as a precautionary estimate of numbers that could be released in 2024. It should be noted that the risk to sites/features is based on current HPAIV risk levels, which are based on county-specific detections of disease in wild birds of target species, mass mortality events, and poultry outbreaks in the past four months (see the GWRAT methodology, Defra 2024, for further detail). As such, the output reflects risk at the time the output is generated, and the risk will therefore need to be continuously reviewed over the course of the project. See figure 2 below for an overview of the model.

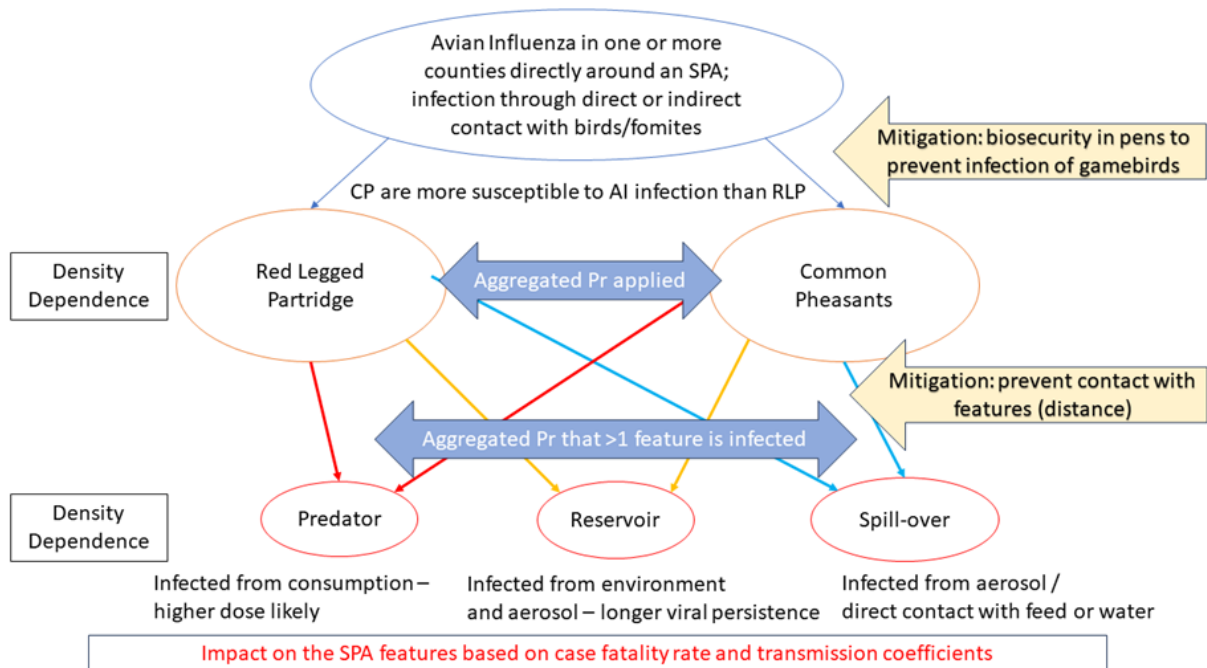


Figure 2: A schematic overview of the different steps in the GWRAT. The figure shows that:
1. Background HPAI risk is considered.
2. This risk is used to calculate an aggregated probability that common pheasants and red-legged partridges are infected. Density of gamebirds and common pheasants' higher

susceptibility to HPAI are taken into account. Points at which mitigation measures such as biosecurity in pens can be included are shown.

3. This probability is then used to calculate an aggregated probability that more than one feature could be infected. Density of protected features and transmission routes to different groups of features are taken into account.

The GWRAT provides a semi-quantitative assessment of the likelihood of HPAIV transmission from gamebirds to three categories of species features. The resulting semi-quantitative risk levels can be grouped into tiered categories as follows: SPAs at negligible risk (background), very low risk; low risk; medium risk; high risk, according to the European Food Safety Authority (EFSA) definitions (see Table 1). These qualitative risk levels are applied based on the logarithm of scores generated by the GWRAT.

Table 1: Table showing risk levels, definitions, management responses, and risk level value ranges.

Risk level	Definition	Risk management measures	Value range
Negligible ¹	Event is so rare, does not merit consideration	Management measures not required.	0.000
Very low	Event is very rare, but cannot be excluded	Constant background level of risk. Management measures should be considered. Increase continued/vigilance should risk level increase.	>0.000 - <0.001
Low	Event is rare, but does occur	Management measures should be considered. Increase continued/vigilance should risk level increase.	>0.001 - <0.01
Medium	Event occurs regularly	Management measures required to reduce risk.	>0.01 - <0.1
High	Event occurs very often	Management measures are unlikely to sufficiently reduce risk.	>0.1 - <1

¹ For avian influenza risk levels, due to the endemic presence of low pathogenicity avian influenza viruses in the wild bird population throughout the year, a negligible risk level would only be applied to specific high biosecurity compartments in the poultry sector.

Risk level	Definition	Risk management measures	Value range
Very high	Event occurs almost certainly	Management measures are unlikely to sufficiently reduce risk.	1

The tool outputs (scores generated by the GWRAT) provide species feature category risk levels, based on current HPAIV risk levels prior to the addition of management conditions. The threshold value for an acceptable level of risk has been established as ‘very low’ risk (represented by a value <0.001) of HPAIV transmission. Below this value (i.e., under a ‘very low’ risk level), Defra considers that additional management conditions should be considered (whereas EFSA would usually deem that at this risk level they could be considered) but are not deemed necessary as this this would mean applying mitigations for a possible risk for HPAIV transmission in all circumstances (i.e., including when HPAIV transmission is a background/negligible risk), even in the absence of any known outbreak. Above this value, management conditions will be considered, and the level of risk reduction estimated, with the aim of bringing the risk to an acceptable level (i.e., <0.001) consistent with the requirements of the Habitats Regulations. While a ‘very low’ risk or GWRAT output <0.001 is considered a level at which mitigation should be considered but is not required, it is important to note that mandatory biosecurity measures will be applied to all SPAs covered by GL45 as a precautionary measure. Assessing the level of risk reduction to SPA qualifying features via the application of management conditions is important to ensure, beyond reasonable scientific doubt, that there will be no adverse effect on the integrity of the SPAs resulting from gamebird releases.

Regarding the species feature categories (i.e. reservoir, spill-over, and bird of prey) and the risk levels associated with them, the most important ‘reservoir’ species for HPAIV are widely accepted to be wild birds from the orders of Anseriformes (ducks, geese, and swans) and Charadriiformes, particularly gull species. These species typically aggregate in dense populations to roost and/or forage, and spend extensive periods of time in cold water, which is a highly transmissible environment for HPAIV. Consequently, reservoir species are exposed to multiple and substantial direct and indirect transmission pathways. In this context ‘birds of prey’ refers to raptor species (e.g., hen harrier, merlin, short-eared owl and others). For raptors, direct transmission via predation on infected gamebirds/bridging species (e.g. passerines or gulls) or scavenging on infected carcasses is the most likely pathway, particularly in lean winter periods when birds of prey are more likely to scavenge. ‘Spill-over’ species encompass all other species that must be considered but for which susceptibility is harder to gauge owing to the lack of evidence of their susceptibility to HPAIV, their habitat use, ecology, and behaviour, which may or may not bring them into contact with gamebirds or make them vulnerable to transmission, but which could also act as a bridging species. This feature group includes birds such as cliff nesting seabirds (e.g., common puffins, common guillemot) and breeding passerines (e.g., woodlark, wood warbler). See the GWRAT methodology for further detail on the categorisation of species between these three groups.

The GWRAT feature groupings reflect the comparative consequences of infection by gamebirds and potential impact of transmission to protected SPA features, which is considered accordingly in Part D. For instance, birds of prey are often rare and the loss of even a few protected SPA birds to HPAIV on an individual site could produce a UK population level effect and adversely impact the species conservation status. Conversely, and as detailed in the GWRAT methodology, reservoir species are often represented by substantial populations on SPAs and can occur in mixed species aggregations in areas close to gamebirds. Consequently, there is potential for one or more reservoir species to express a disease induced mass mortality; however, while there is potential for significant impacts on the SPA population, the death of a small number of birds from HPAIV infection is less likely to produce a population level effect at the UK level. It should be noted that while the species groupings in the GWRAT are made considering impacts on populations at the national level, the appropriate assessment (Part D) assesses the likelihood of impacts at the site-population level, informed by the outputs of the GWRAT and SPA-specific evidence provided by NE.

In addition to spatial and temporal consideration of the SPA features and consequent transmission pathways, bridging species that may provide a transmission pathway between gamebirds and SPA features must be considered. Because of the complexity of bridging species interactions with susceptible species, it is not possible for the GWRAT to consider each possible combination of transmission pathways and therefore the presence of bridging species is considered in the GWRAT on a country wide basis and included in the indirect transmission pathway.

The GWRAT considers the risk of HPAI transmission pathways, where gamebirds might contribute to that risk, in real time. Critical to managing the risk to SPA protected birds from gamebird release in 2024 is the ability to respond to the possibility of risk levels rising above the current level of risk later in the year, including the pre- and post-release period. The level of risk over the past four months follows a profile similar to that recorded prior to the worst outbreak of HPAI on record in 2022. However, this assessment will also consider the available legislative and administrative tools with which mitigation measures could be introduced to lower a future increase in the level of risk and the circumstances under which their use must be triggered.

Part A: Introduction and information about the plan or project and an initial assessment of credible risk to special protection areas

A1. Background to the plan or project

Defra is using the HRA assessments carried out in 2022 and 2023 to inform the 2024 HRA assessment for the following reasons:

- We are not aware of any new methods or techniques of undertaking generally licensed activity that have not been covered in previous assessments and which would pose potentially new risks.
- The evidence provided in these HRAs continues to be valid and is consistent with additional statutory advice provided by NE in 2023 for individual licences, though this also needs to be considered in light of the currently lower national HPAIV risk in wild birds.
- There have been no new or amended SPAs designated or classified by Government during the period since the previous HRA was made.
- The project being assessed, and the activities that would be authorised, remain the same as in previous years.

This document is the note of that final assessment and decision in the undertaking of Defra duties as competent authority. It follows the structure of Defra's 2023 HRA, explaining how Defra has considered the evidence and arrived at its decisions. Defra's HRA comprises a set of documents:

- this decision-document
- summary of final general licence proposals (Annex A)
- GL45 licence
- NE's 2021 sHRA and 2023 sHRA addendum
- Defra's 2022 QRA
- GWRAT methodology

A2. Details of the plan or project

Defra is proposing to issue GL45 to permit the release of gamebirds on SPAs and within their buffer zones from 31 May 2024 to 1 Feb 2025. Current individual licences issued under the 2023 individual licensing regime for release of gamebirds on or in the buffer zone of SPAs are valid until, at the very latest, the end of May 2024. The open season for gamebirds ends on 1 February 2025 (inclusive).

Subject to this HRA, Defra is proposing to issue a GL for 2024 with the same conditions that form an integral part of GL43, with the addition of conditions that will further mitigate the risk of HPAIV transmission between gamebirds and protected wild birds. In doing so, release of gamebirds on land designated as both a SAC and SPA can be licensed under GL45, provided that the relevant SPA is covered by GL45. GL43 will continue to apply to gamebird releases on land designated as a SAC only. Any releases of gamebirds that cannot be permitted under either GL43 or GL45 will require an individual licence. All other SPAs, which were not subject to a licence application in previous years but could receive licence applications during 2024, would also require an individual licence.

Here we provide an assessment of two proposed approaches to GL45 (a and b) depending on the HPAIV risk in wild birds. GL45a would apply if the national HPAIV risk in wild birds is medium (i.e., the event occurs regularly) and GL45b if that risk is low (i.e.,

event is rare but does occur) (see Annex A). If the national risk level returns to high, it is proposed that we return to individual licensing on or within 500m of all SPAs as per 2023.

Part B: Information about SPAs and Ramsar sites which could be affected

B1. Brief description of the SPAs and their qualifying features and B2. European site conservation objectives

Defra notes the information set out in NE's 2023 sHRA addendum, as per NE's original sHRA dated January 2021, as an accurate account of SPAs, qualifying features, and conservation objectives.

Of the 87 SPAs in England, 31 received individual licence applications for gamebird releases in 2023. These 31 sites are in scope for assessment for inclusion in GL45a for the release of gamebirds in a medium HPAIV risk scenario. The scope of this assessment is therefore limited to the 31 SPAs (out of a total of 87) which were the subject of individual licence applications during 2023. Any release of gamebirds that may be proposed on or within 500m of the remaining 56 SPAs during 2024 would not be covered by GL45 and would require an individual licence for any gamebird release. Parts C and D provide the full assessment of suitability of these sites for inclusion in a GL.

SPAs with only breeding qualifying features:

1. [Benacre to Eastern Bavents](#)
2. [Breckland](#)
3. [Bowland Fells](#)
4. [Flamborough and Filey Coast](#)
5. [Leighton Moss](#)
6. [North Pennine Moors](#)
7. [North York Moors](#)
8. [Peak District Moors](#)
9. [Sandlings](#)
10. [South Pennine Moors](#)
11. [Thursley, Hankley and Frensham Commons](#)
12. [Wealden Heaths Phase II](#)

SPAs with only non-breeding (i.e., overwintering) qualifying features:

1. [Avon Valley](#)
2. [Crouch and Roach Estuaries \(Mid-Essex Coast Phase 3\)](#)
3. [Deben Estuary](#)
4. [Tamar Estuaries Complex](#)
5. [Thames Estuary and Marshes](#)

SPAs with both breeding and non-breeding qualifying features:

1. [Alde-Ore Estuary](#)
2. [Broadland](#)
3. [Chesil Beach and The Fleet](#)
4. [Chichester and Langstone Harbours](#)
5. [Dorset Heathlands](#)
6. [Foulness \(Mid-Essex Coast Phase 5\)](#)
7. [Lower Derwent Valley](#)
8. [Minsmere-Walberswick](#)
9. [New Forest](#)
10. [North Norfolk Coast](#)
11. [Salisbury Plain](#)
12. [Solent and Southampton Water](#)
13. [Stour and Orwell Estuaries](#)
14. [The Wash](#)

Part C: Screening of the plan or project for appropriate assessment

C1. Is the plan or project directly connected with or necessary to the (conservation) management (of the European Site's qualifying features)?

NE's 2021 sHRA and 2023 sHRA addendum were produced for Defra as the competent authority to formally adopt as their own assessment/conclusion. Defra adopts NE's 2021 sHRA conclusion that the project (the release of gamebirds on SPAs under a GL) is not wholly directly connected with or necessary to the management of SPAs qualifying features, and therefore a further appropriate assessment is required.

C2. Is there a likelihood (or a risk) of significant adverse effects ('LSE')?

Medium risk

We continue to apply the rationale and evidence from Defra's 2022 QRA and NE's 2023 sHRA addendum in assessing the likelihood of significant adverse effects. The QRA provides an assessment of transmission risk between CP and protected wild birds under a medium national risk level, which was in place when it was drafted and finalised in August-October 2022. NE considered the evidence provided in the QRA to be generally applicable to the anticipated situation in summer 2023 and referenced the QRA throughout the 2023 sHRA addendum. Defra consider the conclusions of the QRA to be relevant and applicable to pheasant release under the current medium HPAIV risk scenario.

Regarding the release of CP, the QRA concluded that the release of large numbers of captive CP in summer would result in a very high likelihood of infecting one or more protected wild birds with HPAIV in the vicinity of release sites in many types of habitats. NE broadly agreed with this assessment and concluded in the sHRA addendum that

pheasant releases were likely to be associated with an increased risk of exposure and infection of protected wild birds with HPAIV.

Regarding RLP, this species was not in scope of the QRA, but the NE sHRA addendum determined that, considering the potential for RLP to be infected with HPAIV and the potential for contact with protected wild birds following release, they were also likely to be associated with an increased risk of exposure and infection of wild protected birds with HPAIV. It should be noted that the sHRA was drafted when the national HPAIV risk in wild birds was determined to be very high and this conclusion reflects the likely effect of RLP under this scenario. The GWRAT also establishes that, while there is little evidence for RLP beyond showing that they are susceptible to HPAIV and that a high dose is needed for infection to occur, virus can be recovered from infected RLP so there remains the potential for infected RLP to transmit the virus to protected wild birds. Defra can therefore conclude that, under a medium HPAIV risk scenario, there are likely significant adverse effects from the release of pheasant and/or RLP on or in the buffer zones of SPAs in 2024.

Interaction between released gamebirds and qualifying SPA bird species could generally occur in a variety of ways, exposing both sets of birds to disease risk. The risk from gamebird release to those SPA feature species which are unlikely to leave their SPAs during their relevant season will be largely dictated by the location of release sites, the dispersal of released gamebirds, and their movement into their SPAs. Some more mobile SPA feature species which do not directly interact with gamebirds may utilise 'functionally linked land' (e.g., wetland, farmland, grassland, etc.) around their SPAs, which may also be utilised by foraging or roosting gamebirds. Other SPA feature species likely to utilise functionally linked land around the SPA may also directly interact with gamebirds (most significantly though predation of sick birds and scavenging of carcasses). SPA species may be at risk from both bridging species and the more direct exposure pathways outlined above.

Where there may be no direct overlap between a breeding bird season and a gamebird release in late summer, there may be residual impacts left behind by kept gamebirds in terms of ground surface contamination that could still present a contact-pathway of transmission to local protected wild birds. There is also a risk that gamebirds released in late summer may survive overwinter and provide a transmission pathway (directly via contact or indirectly via environmental contamination/contact with bridging species) with migratory breeding features when they return to SPAs in the spring, if HPAI is still circulating in the country. Literature suggests that around 16% of released CP and 15% of RLP can survive to the end of the shooting season, though this is based on a limited number of studies (Madden et al 2018). The majority of released CP are typically shot during the shooting season or die from predation (mainly by foxes) (Madden et al 2018). Measures intended to reduce transmission risk between gamebirds and wild birds do not address the survival of a small percentage of gamebirds into the following spring. Advice is included in the GL regarding not releasing an excessive number of gamebirds compared to the number of birds expected to be shot throughout the shooting season and regarding 'catching up' gamebirds that remain on site after the shooting season (see Annex C). The catching up of gamebirds is not a mandatory measure owing to constraints on the

feasibility of catching up every remaining gamebird, but this advice is aimed to help ensure that as few gamebirds as possible remain in the wild at the end of the shooting season and into the following spring.

Low risk

HPAIV was last recorded as low risk for wild birds in September 2021, at which time there had been no new cases of HPAIV in domestic poultry or in captive birds in the UK since the end of March 2021. The risk of incursion of HPAIV from autumn migrations of wild birds into the UK for over-wintering was noted at the time and stringent adherence to biosecurity measures for poultry (including gamebirds) and captive birds was advised. In GL43 HRAs (informed by previous sHRAs), which applied to SPAs prior to 2023, the general risk-pathway of disease transmission was considered, and it was concluded that there were no likely significant effects from this pathway, which would include any likely risk of HPAIV transmission. This conclusion reflected both the low national HPAIV risk and the limited evidence of gamebird susceptibility to HPAIV at the time. It has since been established that gamebirds, particularly CP, are susceptible to HPAIV and can transmit the virus to other birds and into the environment. As such, if the national HPAIV risk level is reduced to 'low' while GL45a is active and Defra can consider the application of GL45b, Defra will use relevant recent data to make an evidence-based assessment of the risk pathway and likely significant effect of gamebird release on SPAs under a low-risk scenario and will seek NEs statutory nature conservation advice.

Part D: Appropriate assessment and conclusions on site integrity

This assessment assumes a medium HPAIV national risk to wild birds under which gamebirds could be released on or within the buffer zones of SPAs (see Annex A).

GL45a – to be issued under a medium HPAIV risk scenario

Defra considers that a general licence would be appropriate for some sites under a medium HPAIV risk scenario. In these circumstances we will refer to the General Licence as GL45a, and under a low-risk level, GL45b. GL45a would permit the release of pheasant and/or RLP on and/or within the buffer zones of specific SPAs named in the GL. These SPAs have been selected based on the qualifying features for which the SPA is designated taking account of the degree to which GL conditions mitigate the risk of HPAIV transmission from gamebirds to these features and considering the possibility of adverse effects on their conservation objectives and site integrity. Gamebird releases on and/or in the buffer zone of all other SPAs would require an individual licence. Conditions in GL45a would go beyond than those contained in GL43 (i.e., inclusion of biosecurity measures) and include release densities consistent with GL43 for both SACs and SPAs, allowing for the application of GL45a to SACs that are co-designated as SPAs.

Mitigating measures and transmission risk

Here we clearly set out how the likely significant effects that could arise from HPAIV transmission identified in Part C can be mitigated by the inclusion of mandatory conditions in the GL and enable conclusions regarding the likelihood of adverse effects on site integrity. The mandatory measures included in GL45a aimed at reducing HPAIV transmission risk are site-specific delayed release dates, biosecurity measures, and pre-release veterinary checks and testing. These measures will interrupt HPAIV transmission pathways by reducing the risk of sick gamebirds being release onto or in the buffer zone of an SPA, by reducing the risk of potentially infected gamebirds encountering other birds following release (i.e., enabling direct transmission), and by reducing the risk of potentially infectious gamebirds contaminating habitat that is occupied by other birds following release (i.e., enabling indirect transmission). Further detail on these conditions is provided in the sections below.

Other conditions are included in GL45a that are not specifically targeted at the reduction of HPAIV transmission risk but serve to mitigate against wider risk/negative effects on the site itself, (e.g., nutrient enrichment of water and soil, Madden and Sage 2020) some of which have been adapted from the previous gamebird general licence (i.e., GL43), which included conditions to mitigate against risks of gamebird releases on both SPAs and SACs . These include conditions regarding gamebird release densities (conditions 1 and 2), the reporting of release activity (condition 3), and compliance and monitoring (condition 6) (see GL45a for full details). Section 8.2.7 on the process for managing escalating risk levels considers how additional mitigating conditions could be applied if an increasing risk level and corresponding risk assessment considers them appropriate.

Delayed release dates

Inclusion of site-specific conditions specifying delayed release dates (included in condition 7 where relevant) in the GL can reduce risk to features on sites that are notified for breeding features only (see Annex B) and which are known to depart (or for the majority of the population to have departed) the SPA by specific dates. By applying a delayed release date gamebird release will only be permitted once the qualifying breeding features are known to have departed the SPA to their overwintering grounds. Application of this measure will interrupt HPAIV transmission pathways between gamebirds and protected wild birds via both direct (e.g., beak to beak) and indirect (e.g., bridging species, environmental contamination) contact as gamebirds and protected wild birds will not be capable of occupying the same habitats within the SPA at the same time. For example, if a breeding population is known to depart an SPA at the end of July, then permitting gamebird release in August would prevent gamebirds and the qualifying feature being on site at the same time, thereby preventing transmission. Where the risk of gamebird release is sufficiently high (for instance where the application of mandatory biosecurity measures will not provide sufficient mitigation) that a delayed release date is considered necessary, appropriate delayed release dates have been established by Defra using evidence gathered from NE 2023 Local Advice Records (LARs) and published [conservation advice](#).

Biosecurity measures

As set out in their previous statutory advice to Defra, NE consider the application of biosecurity measures to all SPA licences (general and individual) should be a standard means of mitigating transmission risk, particularly where the wider background risk of HPAIV circulation remains either medium or high. This aligns with Defra's published advice around biosecurity and HPAIV (Defra 2022d) and best practice guidance (Defra 2022c). Defra considers the mandatory biosecurity measures specified in GL45a to be precautionary, reasonable, and proportionate given the current national HPAIV risk in wild birds.

There are multiple pathways by which HPAIV can be transmitted from released gamebirds into wild bird populations. This can include direct transmission via e.g., beak-to-beak contact, as well as indirect transmission via e.g., contact with contaminated environments/surfaces, ingestion of contaminated material, or via bridging species (e.g., corvids, gulls, passerines). The full biosecurity conditions, their purposes, and the HPAIV transmission pathways that they mitigate are detailed in Annex C. The HPAIV virus can persist and retain infectivity at low temperatures (i.e., for up to 55 days at 4°C in reduced sunlight and high humidity), indicating that winter conditions will not prevent survival of the virus outside of a host and that environmental contamination could persist for several weeks. This means that there is a risk of transmission for an extended period following initial contamination and implications for transmission via humans through contaminated clothing and equipment.

Mandatory biosecurity measures will reduce the risk of infected gamebirds being released onto SPAs (via e.g., ongoing checks for signs of HPAIV infection pre-release), of released gamebirds becoming infected post-release (via e.g., hygienic maintenance of feeding and watering stations to prevent and remove contamination) and transmission from gamebirds to qualifying SPA features or bridging species (via e.g., cleaning of equipment and disposal of carcasses to prevent environmental contamination and scavenging). See Annex C for full details. The inclusion of best-practice biosecurity measures was recommended in NEs 2023 sHRA addendum, stating that, 'biosecurity measures might play an important role in reducing the risk of introducing infected gamebirds into a release area and of them becoming infected shortly afterwards whilst being kept and then going on to infect local wild birds including SPA birds.' It was also noted in the addendum that mandatory biosecurity measures are implemented to prevent the spread of HPAIV in disease control and prevention zones. As NE notes in the 2023 sHRA, the implementation of best-practice measures is broadly endorsed by the gamebird releasing industry to protect the health of gamebirds (see this [blog](#) as an example).

The proposed biosecurity measures are based on existing Defra biosecurity advice (Defra 2022c) aimed at keepers of captive birds and poultry (including gamebirds) and have been informed by expert advice from Defra's Exotic Disease Control team. The conditions to be included have been identified as both effective and feasible through an expert elicitation process led by the APHA in development of the GWRAT. The GWRAT methodology considers gamebird pens/areas to be equivalent to a backyard poultry premises with no biosecurity measures (i.e., where it is not possible to prevent wild bird contact). The

application of routine biosecurity to this scenario is considered to be capable of achieving a fourfold reduction in the risk of disease incursion (EFSA Panel on Animal Health and Welfare, 2017). Defra acknowledges that gamekeepers have limited control over the environments in which gamebirds will be housed and released, which the GWRAT acknowledges as having biosecurity equivalent to a backyard premises. As such, taking a precautionary approach to the application of routine biosecurity measures proposed for GL45a, these measures are considered capable of achieving a twofold reduction in the risk of disease incursion (i.e., entry into the SPA). These measures will be implemented alongside a 'mandatory veterinary check and testing' condition.

The inclusion of mandatory biosecurity measures as standard in GL45a is considered to have a number of benefits: consistently applying a single set of measures will provide clarity for shoot managers and will reduce the risk of gamebird infection and of transmission to wild birds, which is of particular importance should autumn migrations result in an increase in prevalence of HPAIV in England, these measures mitigate the risk given the GWRAT assessment is based on current risk (i.e., based on the past four months of data). Further analysis of risk of gamebirds acting as a vector in HPAIV transmission over the autumn migration period suggests additional mitigation is required. By imposing effective and feasible mandatory biosecurity measures in advance of the autumn migrations and continually monitoring the national risk level, we can proactively mitigate against a potentially increased HPAIV transmission risk that might be observed after gamebirds have been released. The risk level will be monitored, and further licence conditions will allow the competent authority to respond to elevated risk by modifying or revoking the general licence or utilising appropriate animal health legislation.

Pre-release veterinary checks and testing

The inspection of gamebirds (and other kept birds such as poultry that are held in the same release pen/area) by a vet within the 24-hour period prior to release is a condition of the GL (condition 4). This requirement will enable the detection of infected gamebirds within a short window prior to release. Gamebirds can only be released if the vet confirms in writing that there is no evidence of a notifiable disease (e.g., HPAIV) in any of the gamebirds to be released or the other kept birds, which must be reported to Defra. This will prevent the release of infected gamebirds onto the site/buffer, where they could then directly or indirectly transmit the virus to qualifying SPA features or bridging species.

Alongside veterinary inspection, the condition also specifies that RLP must be tested (i.e., samples must be taken within the 48-hour period prior to release and sent to the APHA National Reference Lab for analysis) if they have not mixed with CP or other 'indicator species' (e.g., chickens, turkeys). An indicator species is an animal that is more likely to be affected by and display symptoms of the virus if it is present. RLP are not an indicator species, so while RLP may be infected with HPAIV this may not be detectable via vet inspection but would be detectable in one of the indicator species that the RLP have been associating with. Detection of HPAIV symptoms in an indicator species means that it can be inferred that the RLP are also likely infected, and the release would not be permitted. Where RLP have not mixed with indicator species testing is required to be sufficiently

certain whether HPAIV is present. In this case, RLP can only be released when the vet has received confirmation of negative results for HPAI, which must be reported to Defra.

Inspection and testing of gamebirds are key components of the mitigating conditions, alongside biosecurity measures, which will reduce the risk of infected gamebirds being released onto the SPA/into the buffer and reduce the risk of onward transmission of HPAIV to other bird species or contamination of the environment. See Annex C for full details of the check and testing requirements and the HPAIV transmission pathways this condition will mitigate.

Application of a precautionary approach

The national HPAIV risk in wild birds level is currently set at medium, having been lowered from high in November 2023. To reflect a possible reduction in the national risk level assessments of the likely significant effect of gamebird releases on SPAs have been made under both medium and low HPAIV risk to wild birds scenarios. However, the risk of incursion of HPAIV from autumn migrations of wild birds into the UK means that the national risk level could feasibly be reassessed as high should it result in HPAIV outbreaks in the UK. There never can be an absolute guarantee about what will happen in the future and a degree of uncertainty has to be accepted and managed. To address this unavoidable uncertainty, a precautionary approach has been applied in several areas of this HRA. In applying a precautionary approach, we have identified and anticipated potential risks, as far as reasonably possible, and put in place measures to reduce the likelihood of these risks materialising or of having an adverse effect on site integrity if they do.

A precautionary approach has been applied to address uncertainty in the following ways in this HRA:

- use of the GWRAT to estimate risk;
- application of the GWRAT outputs;
- the introduction of mandatory biosecurity measures;
- the level of risk reduction afforded to the biosecurity measures;
- and the ability to amend or revoke licences in response to changing risk levels (which is discussed in detail in detail in the section 'Process for managing escalating risk levels').

The GWRAT tool was developed to address a lack of data and consequent scientific uncertainty regarding the risk of HPAIV transmission to wild birds from gamebirds released onto SPAs. This tool utilises recent data on HPAIV prevalence to produce estimates of the likely presence of HPAIV, the potential for spread into released gamebirds, and the potential that SPA qualifying features will be exposed. Values are attributed to each of these likelihoods and estimates of the risk gamebirds pose to SPA species features is generated. In the absence of scientific certainty this enables an estimate of the overall risk gamebird releases pose to the SPA conservation objectives, which informs the appropriate assessment for that SPA. Further detail on the GWRAT methodology and precautionary elements are captured in section 4.4.

The application of risk management measures according to the risk levels determined by the GWRAT is also precautionary. Risk levels are categorised in accordance with EFSA definitions (see Table 1), and risk management measures proposed according to these risk levels. For instance, at negligible risk level management measures are not required, at very low and low they should be considered, at medium they are required, and at high and very high risk they are considered unlikely to be sufficient. In considering the outputs of the GWRAT when applying management measures to gamebird releases, we took a precautionary approach and have applied management measures under risk levels (i.e., very low) for which Defra has determined they should be considered (whereas the EFSA definitions suggest that management could be considered at these risk levels) but are not strictly required. This addresses the risk that the GWRAT might underestimate the risk posed by gamebird releases on SPAs.

The introduction of mandatory biosecurity measures and application to all SPAs in GL45a under a medium national HPAIV risk scenario (and negligible/very low SPA-specific risk levels as determined by the GWRAT), is another precautionary approach to address scientific uncertainty around the potential for the national HPAIV risk level to increase later in the year following autumn migrations. In mandating that gamekeepers implement biosecurity measures from the beginning of the release season, we can reduce the risk of infected gamebirds being released onto site and reduce the likelihood of HPAIV transmission between gamebirds and wild birds post-release, which will provide a buffer against HPAIV transmission should prevalence start to increase.

In estimating the impact of mandatory biosecurity measures on transmission risk in the appropriate assessment we also took a precautionary approach. The GWRAT methodology considers gamebird pens/areas to be equivalent to a backyard poultry premises with no biosecurity measures. The application of routine biosecurity to backyard poultry premises is considered to deliver a fourfold reduction to the risk level (EFSA Panel on Animal Health and Welfare, 2017). As a precaution, a conservative estimate of a twofold reduction has been attributed to the application of routine biosecurity measures to outdoor gamebird release pens/areas, which accounts for any uncertainty in the estimate of the reduction afforded by biosecurity measures.

Process for managing escalating risk levels

To trigger a response to a rising HPAIV risk level that introduces measures beyond the mitigation measures already included in GL45 the competent authority will monitor, on a weekly basis, the level of site risk as indicated by the GWRAT. In addition to real time GWRAT outputs, evidence like anticipated movements of birds, weather forecasts, and SPA-specific evidence will also be considered. The general licence contains a provision that permits SoS as the competent authority to amend or revoke GL45. This provision enables Defra to respond effectively to rising risk levels prior to gamebird release and during the shooting season. Prior to gamebird release it is possible to consider measures like reductions in gamebird densities, additional biosecurity, separation measures, and mandatory veterinary advice on shoot specific disease control measures. Once the shooting season has started powers to amend GL45 would allow for additional mitigation measures like the catching up of live birds, more stringent conditions on the collection of

dead birds, conditions on release locations (e.g., only permitting releases in the buffer), conditions on reduced release densities, and increased surveillance measures. Some of these measures (e.g., catching up) are currently included in GL45 as advice, but could be strengthened by making them mandatory conditions, should the risk level increase and the risk assessment deem them appropriate. It is not possible to include spatial conditions specific to each release pen or shoot in a general licence. However, if the threshold is reached at which the HPAIV risk is deemed sufficiently high, an assessment will be required of the effectiveness of existing measures within GL45 or whether it is necessary to revert to individual licensing to provide the appropriate mitigation e.g., to enable inclusion of specific spatial conditions where necessary.

GL45 has limited capability to introduce mitigation measures after gamebird release and prior to the start of the shooting season. This is partly owing to the provisions in the Game Act 1831, which prohibits the catching up and control of gamebirds already released into the wild. However, once the shooting season starts catching up would be permissible. As a general rule, gamebird HPAIV outbreaks can be managed by the SoS through the powers and duties the SoS has pursuant to the Animal Health Act 1981. The 1981 Act contains broad powers for Ministers to enact Orders 'as they think fit' for the prevention of the spread of disease. The Avian Influenza (H5N1 in Wild Birds) Order 2006 applies to wild birds and wild game birds, as opposed to 'poultry and other captive birds', which are covered by the Avian Influenza and Influenza of Avian Origin Order 2006. Under Article 5 of the H5N1 in Wild Birds Order, the SoS must declare a wild bird control area and a wild bird monitoring area in England if the Chief Veterinary Officer advises the SoS that:

- Avian influenza virus of the H5 subtype is present in a wild bird or the carcase of a wild bird in Great Britain, and the neuraminidase is suspected or confirmed to be N1.

As these powers are very broad, it would require an assessment of the nature of risk at the time of escalating risk levels to determine the measures that could demonstrably reduce that risk to acceptable levels (as detailed in paragraph 4 of the Executive Summary). Such an assessment will consider the outputs of the GWRAT at the time (which will offer finer county-level data than the national risk level), advice from epidemiologists, SPA-specific ornithological data, and other factors like weather forecasts and anticipated wild bird movements.

Decisions in relation to specific sites

Here we provide an overview of the qualifying features of each SPA and evidence for the application of mandatory biosecurity measures as standard and other measures as mitigating conditions where necessary. It is important to note that the GWRAT output is based entirely on current risk, which may change throughout the year i.e., a SPA for which the GWRAT output currently falls below the 'very low' risk threshold could have a higher risk output following the autumn migrations. The potential for the current precautionary mitigation measures to address the potential for an increase in risk as the season progresses is discussed. It should also be noted that, as plans and projects must be

assessed against the conservation objectives of the SPA in question, it is appropriate to consider whether impacts to birds 'out of season' (i.e., consideration of breeding birds that remain on site over winter) may undermine the conservation objectives (particularly in relation to abundance of bird features). For instance, if an SPA has a target to maintain/restore abundance of this species, and activity in the non-breeding season impacts resident adults which can then no longer reproduce in the breeding season, the conservation objectives of the SPA may not be met causing an adverse effect on integrity of the site.

Benacre to Eastern Barents

This SPA is designated for breeding bittern (*Botaurus stellaris*), breeding little tern (*Sterna albifrons*), and breeding marsh harrier (*Circus aeruginosus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9009291 Benacre to Easton Barents SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/UK9009291_Benacre_to_Easton_Barents_SPA_Published_14_Sep_2023). Regarding spatial considerations, little tern breed on the sand and shingle beaches at Benacre, Kessingland and Covehithe Broads and forage around lagoons. Owing to the distinctly different habitat preferences of little tern and gamebirds, there is low risk of direct transmission from contact with gamebirds or indirect transmission via spatial overlap of contaminated environments. Similarly, bittern show a highly localised preference for dense reedbeds and wetland habitat, rarely venturing into open habitats, so are not at risk of direct transmission via contact with gamebirds, nor indirect transmission via spatial overlap of contaminated environments. Marsh harrier, however, can have home ranges several kilometers from nesting territories, often hunting over arable farmland (in proximity to the SPA), saltmarshes, reedbeds, and grasslands. This species is known to predate on waterbird chicks, and female marsh harrier can take larger prey like water rails, wading birds, and potentially pheasant, which NE advice suggests could pose a direct HPAIV transmission risk.

Regarding temporal considerations, little tern are present from April are known to depart the site after they finish breeding in September whereas bittern and marsh harrier are known to remain on site following the breeding season and are present in significant numbers year-round. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for HPAIV transmission.

Regarding bridging species, at Benacre to Eastern Barents they primarily include gulls and wildfowl (e.g. greylag geese). Gulls are known to feed on contaminated agricultural land and bathe/roost on the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit. Wildfowl can also feed in various habitats across the SPA and visit agricultural land to feed, which could bring them into direct contact with released gamebirds or subject them to indirect transmission via spatial overlap of contaminated environments. Wildfowl could then facilitate transmission via environmental contamination of wetlands and reedbeds (where they bathe/roost) occupied by marsh harrier and bittern. Marsh harrier could also be exposed to HPAIV indirectly via predation on bridging species (e.g., waterbirds).

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir - negligible; Raptors – very low; Spill-over – negligible; and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Benacre to Eastern Baveints SPA suggest that no management conditions are needed currently.

While the numbers of bittern and marsh harrier within the SPA populations are small and the loss of even one individual would be significant to the SPA population, the likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of the Benacre to Eastern Baveints SPA ([European Site Conservation Objectives for Benacre to Easton Baveints SPA - UK9009291 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-benacre-to-easton-baveints-spa-uk9009291)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Bowland Fells

This SPA is designated for breeding lesser black-backed gull (*Larus fuscus*), breeding hen harrier (*Circus cyaneus*), and breeding merlin (*Falco columbarius*). This SPA supports the largest expanse of blanket bog and heather moorland in Lancashire and provides suitable habitat for a diverse upland breeding bird community. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9005151 Bowland Fells SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9005151-bowland-fells-spa-published-14-sep-2023). Regarding spatial considerations, hen harrier are known to breed on site, where they nest on the ground in upland moorland. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014). Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to their moorland breeding sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging. Merlin also nest on the ground in areas of upland moorland, relying on mature heather, and show high nest site fidelity. Unlike hen harrier, merlin hunt small mammals, birds and insects, but not usually gamebirds, though the risk of direct transmission via predation on smaller gamebirds cannot be ruled out and they could be at risk from scavenging on infected gamebirds where habitats overlap. Lesser black-backed gulls typically nest in colonies, in Bowland this occurs on the open moorland. The species is a

dietary generalist and can be an opportunistic scavenger, so it is feasible that a lesser black-backed gull might be exposed directly to HPAIV via scavenging on an infected gamebird carcass where habitats overlap. It is considered likely that RLP, owing to their affinity for more open habitat, would be drawn to the scrubby and semi-open habitats upon which the qualifying features rely, whereas CP are more likely to occupy woodland and grassland areas.

Regarding temporal considerations, hen harrier breed on site between March and August and females are known to remain on site overwinter so are present year-round. The breeding populations of lesser black-backed gull and merlin are known to depart the SPA by mid-July and the end of September respectively. As such, it is feasible that all three qualifying features could occupy the site at the same time as gamebirds pre-and/or post release (i.e., during acclimation prior to release in July/August and/or during the October-February shooting season), providing the potential for HPAIV transmission.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site, but alongside the lesser black backed gull colony there are smaller numbers of herring gull and greater black backed gull on site. Gulls will forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and make use of wetland within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – very low; Spill-over – negligible; and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on Bowland Fells SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is currently sufficiently low that release is not likely to adversely affect the Conservation Objectives of the Bowland Fells SPA ([European Site Conservation Objectives for Bowland Fells SPA - UK9005151 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/conservation-objectives-for-bowland-fells-spa-uk9005151)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Breckland

This SPA is designated for breeding nightjar (*Caprimulgus europaeus*), breeding stone-curlew (*Burhinus oedipnemos*), and breeding woodlark (*Lullula arborea*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying

features can be found here: [UK9009201 Breckland SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](#). Regarding spatial considerations, breeding stone curlew nest on open, bare ground within short, semi-natural grassland, heathland, or on arable fields and occasionally within conifer plantations. Nightjar visit the SPA to breed in lowland heathland and young conifer plantations, but will use open heaths, grasslands and some arable land for feeding. Woodlark are known to nest by digging a shallow scrape, often preferring grassland, heathland and moorland, and will use grassland and arable land for feeding. In winter, woodlark will also gather in small flocks close to their breeding areas, though they can move to farmland stubbles for the autumn and early winter. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments, namely feeding grounds.

Regarding temporal considerations, breeding stone curlew are present on the SPA from March and are known to depart the SPA in October. Nightjar are summer visitors present from May onwards and depart the SPA by September to overwinter in Eastern, Sub-Saharan West, and Central Africa. Breeding woodlark are resident between February and July and, while most of the population departs the site by August, some animals are known to remain overwinter. As such, it is feasible that all three qualifying features could occupy the site at the same time as gamebirds pre-and/or post release (i.e., during acclimation prior to release in July/August and/or during the October-February shooting season), providing the potential for HPAIV transmission.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low; and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Breckland SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of the Breckland SPA ([European Site Conservation Objectives for Breckland SPA - UK9009201 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Flamborough and Filey Coast

This SPA is designated for breeding gannet (*Morus bassanus*), guillemot (*Uria aalge*), kittiwake (*Rissa tridactyla*), razorbill (*Alca torda*), and a general breeding seabird assemblage. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, nesting gannet are currently restricted to a 5km stretch at Bempton Cliffs, where they lay their eggs on a cliff edge or the flat cliff top. Nesting guillemot are distributed throughout the SPA and lay a single egg directly on to a small ledge on the steep cliffs. Most feeding occurs offshore, with birds likely to avoid inshore areas due to higher rates of disturbance. Kittiwake use the sheerest cliff faces for nesting and feed on small fish and invertebrates near the sea surface, with the highest densities found within 1km of the colony during breeding season. Razorbill lay a single egg directly onto small ledges or cracks on the steep cliffs and are commonly found foraging within 1km of the breeding colony, avoiding inshore areas due to higher rates of disturbance. Several habitats within the SPA support the seabird assemblage, with cliff ledges, cracks, crevices, and the flat cliff top widely utilized as nesting sites. Some species also nest under/amongst boulders and on landslides. As all qualifying features inhabit the sea cliffs, transmission of HPAIV via direct contact or spatial overlap of habitats between seabirds and gamebirds is considered highly unlikely owing to distinctly different habitat preferences.

Regarding temporal considerations, Flamborough and Filey Coast supports the only mainland breeding colony of gannet in the UK. The population begins to return to Bempton Cliffs in mid-January and most birds are on-site in March. The breeding season typically runs from March to September with most adults departing in late September and all adults having left the SPA by early October. Guillemot typically breed from April to August, with the peak breeding season occurring in June and July and most chicks fledging by mid-August. The SPA supports the largest kittiwake colony in the UK, with breeding season running from March to the end of August. Breeding season for razorbill is typically from April to early August, with numbers peaking in June and very few birds recorded after the end of July. Regarding the general sea bird assemblage, species are distributed throughout the SPA and components of the assemblage are present year-round. In general, seabird numbers are at their highest during the breeding season, typically from March to September, with the highest breeding density present from May to July. Although features are likely to be present on the SPA at the same time as gamebirds (i.e. during acclimation prior to release in July/August and/or during the October-February shooting season) direct contact between gamebird and qualifying features or transmission via the sharing of habitat is unlikely; however, indirect transmission via bridging species poses a risk.

Regarding bridging species, farmland habitats in the SPA buffer zone are known to support gulls. Seabirds are highly susceptible to HPAIV, as demonstrated by the 2022 and 2023 breeding season outbreaks. Gulls will forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and make use of

wetland within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low; and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on Flamborough and Filey Coast SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of the Flamborough and Filey Coast SPA ([European Site Conservation Objectives for Flamborough and Filey Coast SPA - UK9006101 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives-for-flamborough-and-filey-coast-spa-uk9006101)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Leighton Moss

This SPA is designated for breeding bittern (*B. stellaris*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9005091 Leighton Moss SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives-for-leighton-moss-spa-uk9005091). NE has advised that this SPA is an important breeding habitat for bittern and supported four breeding pairs at the time of its classification, which represented approximately 20% of the British breeding population. Between 2009 and 2017 no breeding occurred at the site; and only one pair was confirmed breeding in 2018. Breeding appears to have been adversely affected by factors other than gamebird release (i.e., changes to food supply, lowering of the water table due to abstraction, and local pollution), though this does not preclude the potential for additional pressure on the species from gamebird release. The [WeBS](https://www.gov.uk/guidance/webs) five-year peak mean of this species at Leighton Moss SPA is 198 (2017/18 – 2021/22) and the population is not currently considered to be in favourable condition. Regarding spatial considerations, bittern show a highly localised preference for dense reedbeds and wetland habitat, rarely venturing into open habitats. As such, they are not at risk of direct HPAIV transmission via contact with gamebirds nor indirect transmission via spatial overlap of contaminated environments owing to distinctly different habitat preferences.

Regarding temporal considerations, bittern breed on site until the end of September, but NE has advised that individuals remain on site over winter so there is certainty that bittern and released gamebirds would be present on the SPA at the same time.

Regarding bridging species, at [Leighton Moss](#) they include gulls (namely black-headed gulls), marsh harrier, and starlings. Black-headed gulls have been seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and utilise wetlands within the SPA, there is a risk of indirect transmission to bittern from these bridging species. Starlings roost in the reedbeds but feed in various habitats across the SPA, where they could encounter contaminated environments and facilitate transmission via environmental contamination of reedbeds occupied by bittern. Marsh harrier could facilitate transmission between gamebirds and bittern via environmental contamination as they are present on the reedbeds and range more widely. Given that a significant proportion of marsh harrier remain on site over winter this species could be exposed to HPAIV directly via predation on infected CP (and potentially scavenging of dead CP, though this is less likely) or indirectly via predation on another bridging species (e.g., waterbirds). Other potential bridging species include greylag geese, which are known to feed on agricultural land and visit wetlands for e.g. bathing and roosting.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – negligible; and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Leighton Moss SPA suggest that no management conditions are needed currently.

While the numbers of bittern within the SPA population is small and the loss of even one individual would be significant to the SPA population, the likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of the Leighton Moss SPA ([European Site Conservation Objectives for Leighton Moss SPA - UK9005091 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

North Pennine Moors

This SPA is designated for breeding golden plover (*P. apricaria*), breeding hen harrier (*C. cyaneus*), breeding merlin (*F. columbarius*), and breeding peregrine falcon (*Falco peregrinus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9006272 North Pennine Moors SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](#). Regarding spatial

considerations, golden plover breed on heather moorland, blanket bog, acidic grassland and montane summits, where they typically nest in a shallow scrape on the ground hidden by moorland vegetation. They also utilise pasture and marshy areas for feeding on invertebrates. It is feasible that golden plover and released gamebirds could range into the same habitats on the SPA, which poses the risk of direct interaction and indirect transmission via spatial overlap of contaminated environments. Breeding hen harrier are strongly associated with heather-dominated habitat on upland moorland but may utilise young plantations if suitable. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014). Hen harrier can also associate with upland sites year-round and can range widely in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to their moorland breeding sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging. Similarly, breeding merlin also favour heather moorland and sometimes nest in trees, showing nesting site fidelity year to year. Merlin hunt small mammals, birds and insects, but not usually gamebirds, though the risk of predation on smaller gamebirds cannot be ruled out and they could be at risk from direct transmission via predation or scavenging on infected gamebirds where habitats overlap. Peregrine falcon tend to nest on inaccessible cliffs and rock faces so are unlikely to be at risk of indirect transmission via spatial overlap of contaminated environments; however, peregrine falcon are known to take a wide range of avian prey, including CP, so are at risk of direct HPAIV transmission via predation. This species can range around 2km from their nests and typically defend nesting territories 2-9km in size, but rarely hunt birds beyond 6km away. Given their wide-ranging behaviour it is feasible that released gamebirds could enter habitats occupied by peregrines, which poses the risk of direct HPAIV transmission via predation and scavenging.

Regarding temporal considerations, breeding populations of golden plover and merlin are known to be on site from March and depart in late July/early August for lowland areas. Similarly, hen harrier and peregrine falcon also breed from March to August, but hen harrier can remain on upland sites year-round and the presence of overwintering hen harrier in the area has been confirmed by the hen harrier programme. Some peregrine falcon are also known to remain on site year-round if sufficient food is available. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for HPAIV transmission.

Regarding bridging species, on the North Pennine Moors they include small 'open country' birds (e.g., meadow pipits, skylarks, wheatears) that may feed on gamebird feed and provide an indirect transmission pathway to the birds of prey, namely merlin, that feed on them. While merlin usually leave the site by early August, there is the potential for gamebirds and this qualifying feature to be present on the SPA at the same time, so there is potential for these bridging species to provide an indirect transmission route between gamebirds and merlin during this time.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low; and as follows for RLP: Reservoir – negligible; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on North Pennine Moors SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of North Pennine Moors SPA ([European Site Conservation Objectives for North Pennine Moors SPA - UK9006272 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-north-pennine-moors-spa-uk9006272)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

North York Moors

This SPA is designated for breeding golden plover (*P. apricaria*) and breeding merlin (*F. columbaris*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9006161 North York Moors SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9006161-north-york-moors-spa-published-14-sep-2023). Regarding spatial considerations, golden plover breed on heather moorland, blanket bog, acidic grassland and montane summits, where they typically nest in a shallow scrape on the ground hidden by moorland vegetation. They also utilise pasture and marshy areas for feeding on invertebrates. Post-breeding they typically disperse from the moorland areas to lowland areas e.g. farmland. It is feasible that golden plover and released gamebirds could range into the same habitats on the SPA, which poses the risk of direct interaction and indirect HPAIV transmission via spatial overlap of contaminated environments. Breeding merlin also favour the heather moorland on this SPA and can sometimes nest in trees. Merlin hunt small mammals, birds and insects, but not usually gamebirds, though the risk of predation on smaller gamebirds cannot be ruled out and they could be at risk from direct transmission via predation or scavenging on infected gamebirds where habitats overlap. Merlin typically disperse from uplands into lowland habitats following breeding.

Regarding temporal considerations, the golden plover population is known to be on site from March and departs the SPA by the end of July for lowland areas. Merlin are also considered to be an upland bird during the breeding season, leaving breeding areas to spend winter around lowland saltmarshes. The North York Moors merlin population is known to be on site from April and departs the site by the end of August each year. While breeding features should be off site for much of the time that gamebirds are present on the SPA, there is the potential for overlap if gamebirds are released into pens/onto site in

July/August prior to the October-February shooting season, which could allow for transmission.

Regarding bridging species, on the North York Moors they include small 'open country' birds (e.g., meadow pipits, skylarks, wheatears) that may feed on gamebird feed and provide an indirect transmission pathway to the birds of prey, namely merlin, that feed on them. While merlin leave the site in August, there is the potential for gamebirds and this qualifying feature to be present on the SPA at the same time, so there is potential for these bridging species to provide an indirect transmission route between gamebirds and merlin during this time.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low; and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on North York Moors SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of North York Moors SPA ([European Site Conservation Objectives for North York Moors SPA - UK9006161 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-north-york-moors-spa-uk9006161)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Peak District Moors

This SPA is designated for breeding golden plover (*P. apricaria*), breeding merlin (*F. columbaris*), and breeding short-eared owl (*Asio flammeus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9007021 Peak District Moors \(South Pennine Moors Phase 1\) SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9007021-peak-district-moors-south-pennine-moors-phase-1-spa-published-14-sep-2023). Regarding spatial considerations, and as with other upland moorland sites, golden plover breed on heather moorland, blanket bog, acidic grassland and montane summits, where they nest in a shallow scrape on the ground hidden by moorland vegetation. On this SPA they typically use the blanket bog habitat and are more common on the higher and more remote bogs, with the blanket bogs of the Eastern Peak District Moors supporting good numbers of breeding golden plover. Most breeding pairs are found within the Dark Peak area. Adults can travel up to 4km from nesting areas and are known to feed on marginal or low-intensity agricultural pastures outside of the SPA but close to moorland nesting habitat. It is feasible that golden plover and released gamebirds could range into the same habitats on the SPA and on farmland outside of the SPA, which poses the risk of both direct

interaction and indirect transmission via spatial overlap of contaminated environments. Breeding merlin also favour the heather moorland on this SPA and can sometimes nest in trees. Merlin are widespread across the site and utilise an extensive area for hunting. They are known to hunt small mammals, birds and insects, but not usually gamebirds, though the risk of predation on smaller gamebirds cannot be ruled out and they could be at risk from direct transmission via predation or scavenging on infected gamebirds where habitats overlap. Short-eared owl are associated with upland grassland and young forestry during the breeding season, before moving to a range of grassland habitats in winter. Regarding transmission between gamebirds and short-eared owls, NE expert ornithological advice has confirmed that short-eared owl are unlikely to consume pheasant, although scavenging of carcasses cannot be ruled out. There is also a risk of indirect HPAIV transmission through the spatial overlap of foraging areas and shared use of contaminated environments (both short-eared owl and pheasant forage on the ground and will use scattered scrub).

As with the North Pennine Moors and North York Moors populations of golden plover and merlin, birds are known to leave the moors by the end of July and August (respectively) to spend winter in lowland areas. As such, while these breeding features should be off site for much of the time that gamebirds are present on the SPA, there is the potential for overlap with some features if gamebirds are released into pens/onto site in July/August prior to the October-February shooting season, which could allow for transmission. The short-eared owl population is known to breed between April and July before departing the site, though some individuals may remain on site over winter. The population size and likelihood that owls remain on the SPA over winter is known to fluctuate significantly year on year in response to variations in field vole populations, their main prey. In years when voles are abundant, short-eared owls may remain for extended periods and form loose communal roosts over the winter period, whereas in other years the species will leave the SPA after breeding in July. NE advised in 2023 an over-wintering population could be more vulnerable to impacts from HPAIV, the overall risk to this species is low due to the combination of the indirect transmission pathway; the variability in whether the species remains on the SPA over-winter; and if it does, these periods of extended presence will not necessarily persist sufficiently long enough to infect the returning breeding owl population.

Regarding bridging species, on the Peak District Moors they include small 'open country' birds (e.g., meadow pipits, skylarks, wheatears) that may feed on gamebird feed and provide an indirect transmission pathway to merlin, which hunt them. While merlin leave the site in August, there is the potential for gamebirds and this qualifying feature to be present on the SPA at the same time, so there is potential for these bridging species to provide an indirect transmission route between gamebirds and merlin.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – low; Spill-over – low; and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-

over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Peak District Moors SPA suggest that management conditions are needed currently to reduce the risk of HPAIV transmission posed by CP.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is negligible for RLP but for CP is above the threshold for what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of Peak District Moors SPA ([European Site Conservation Objectives for Peak District Moors \(South Pennine Moors Phase I\) SPA - UK9007021 \(naturalengland.org.uk\)](https://naturalengland.org.uk/naturalengland.org.uk)). As mandatory biosecurity measures will be applied through the GL, which are considered to provide in the order of a twofold reduction in the risk level and provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England, we can conclude that the current risk level following application of biosecurity measures would be reduced, but would still fall within the ‘low’ risk level range at which management measures should be considered. Given that the feature-specific risk posed by pheasant release is to raptor (i.e., merlin, short-eared owl) and spill-over species (i.e. golden plover), the application of a delayed release date for CP in early September (e.g., 7th September, when golden plover and merlin will have departed the site) would provide additional mitigation against the risk of transmission between CP and qualifying features. Consequently, **Defra can conclude that, subject to the addition of a delayed release date for CP, the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Sandlings

This SPA is designated for breeding nightjar (*C. europaeus*) and woodlark (*L. arborea*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9020286 Sandlings SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/naturalengland.org.uk). Regarding spatial considerations, nightjar utilise the open grassland and heather heaths for breeding. More recently, they have taken to nesting within open habitat associated with the system of rotational clear-felling within the conifer plantations, where areas of clear-fell and restocked plantation provides ideal breeding conditions. Outside the confines of the forest nightjar use grasslands, arable land and other habitats for feeding. Breeding woodlark typically prefer open, dry habitats with short grasses and heather, but have adapted to breeding in the large conifer forest blocks at this site, using recent plantation and areas that have recently been felled, as well as managed as open ground. Woodlark are known to forage for insects and seeds in short grassland and bare ground and in winter will gather in small flocks close to their breeding areas, though they can move to farmland stubbles for the autumn and early winter. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments, namely feeding grounds.

Regarding temporal considerations, nightjar are present on the SPA between April and August before departing by September to overwinter in Eastern, Sub-Saharan West, and Central Africa. Breeding woodlark are present on the SPA between February and August

and while most of the population departs the site by September, some are known to remain overwinter.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site. However, as with other heathland and woodland SPAs, it is feasible that farmland birds and other passerines that inhabit the SPA and/or adjacent lowland farmland could interact with gamebirds where they are released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Sandlings SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Sandlings SPA ([European Site Conservation Objectives for Sandlings SPA - UK9020286 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-sandlings-spa-uk9020286)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

South Pennine Moors

This SPA is designated for breeding golden plover (*P. apricaria*), breeding merlin (*F. columbarius*), and a breeding bird assemblage, which includes golden plover (*P. apricaria*), common sandpiper (*Actitis hypoleucos*), dunlin (*Calidris alpina schinzii*), twite (*Carduelis flavirostris*), snipe (*Gallinago gallinago*), curlew (*Numenius arquata*), wheateater (*Oenanthe oenanthe*), whinchat (*Saxicola rubetra*), redshank (*Tringa totanus*), ring ouzel (*Turdus torquatus*), lapwing (*Vanellus vanellus*), and short-eared owl (*A. flammeus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9007022 South Pennine Moors Phase 2 SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9007022-south-pennine-moors-phase-2-spa-published-14-sep-2023). Regarding spatial considerations, golden plover nest in a shallow scrape on the ground often hidden by moorland vegetation, favouring a mosaic of dense and short vegetation and large open areas for breeding. According to NE, golden plover use the blanket bog habitat within the SPA and are more common on the higher, flatter and more remote bogs with a mosaic of short and dense vegetation. Agricultural pastures, adjacent to or nearby moorland nesting habitat, are also important feeding grounds in the summer. It is feasible that golden plover and

released gamebirds could range into the same habitats on the SPA and on farmland outside of the SPA, which poses the risk of direct interaction and indirect HPAIV transmission via spatial overlap of contaminated environments. Upon finishing breeding, golden plover typically disperse from moorland areas into lowland areas, notably farmland. Merlin utilise upland moorland habitat for breeding and successive generations of birds use the same breeding territories year to year, with the majority of birds nesting in a shallow scrape on the ground concealed by heather. Supporting habitat, outside the SPA boundary, is considered critical for breeding success given that merlin hunt in habitats around the moorland edge. Merlin hunt small mammals, birds and insects, but not usually gamebirds, though the risk of direct transmission via predation on smaller gamebirds cannot be ruled out and they could be at risk from scavenging on infected gamebirds where habitats overlap.

The breeding bird assemblage is composed of moorland species, which utilise habitat throughout the SPA. Common sandpiper predominantly use the dense vegetation in close proximity to the major reservoir complexes in the SPA. The central block of the SPA supports the core breeding area for dunlin. Twite predominantly use the southern block of the SPA and may be present on site year-round. Snipe use the eastern side of the central block. Curlew are present throughout the SPA. Redshank can be found in the damp moorland fringe habitat near to Oxenhope Moor and Heptonstall Moor. Lapwing predominantly use the moorland fringe areas with shorter vegetation, with Oxenhope moor supporting the highest breeding pairs on the site. Short-eared owl use the long heather and tall rushes on open moorland to provide cover for the nests predominantly in the central belt of the SPA. Whinchat and ring ouzel are scarce across the SPA and therefore difficult to determine local use across the site. Based on the broad distribution of qualifying features throughout the SPA, it is likely that gamebirds would be released into areas occupied by one or more qualifying features, resulting in the potential for HPAIV transmission through direct contact or indirectly through spatial overlap of contaminated environments. Twite in particular were noted by NE as particularly vulnerable to transmission as they remain over winter, can forage several kilometres from nesting areas, and often visit habitats likely visited by gamebirds (e.g., hay meadows and habitats bordering moorland), posing a risk of indirect HPAIV transmission through the spatial overlap of foraging areas and shared use of contaminated environments in winter.

Regarding temporal considerations, golden plover are present between March and June with most expected to have completed breeding and left the site by early August. Merlin are present on site from March to June and are known to leave the SPA by the end of June to spend winter in lowland areas. The general breeding assemblage numbers peak from March to June and show a significant reduction in numbers by 1st July.

Regarding bridging species, on the South Pennine Moors they include small 'open country' birds (e.g., meadow pipits, skylarks, wheatears) that may feed on gamebird feed and provide an indirect transmission pathway to merlin, which hunt them. While merlin leave the site by the end of June, there is the potential for gamebirds and this qualifying feature to be present on the SPA at the same time, so there is potential for these bridging species to provide an indirect transmission route between gamebirds and merlin during this time.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on South Pennine Moors SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of South Pennine Moors SPA ([European Site Conservation Objectives for South Pennine Moors \(Phase II\) SPA - UK9007022 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/south-pennine-moors-phase-ii-spa-uk9007022)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Thursley, Hankley and Frensham Commons

This SPA is designated for breeding Dartford warbler (*Sylvia undata*), breeding nightjar (*C. europaeus*), and breeding woodlark (*L. arborea*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9012131 Thursley, Hankley & Frensham Commons SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/thursley-hankley-frensham-commons-spa-published-14-sep-2023). Regarding spatial considerations, nightjar visit the SPA to breed in lowland heathland and young conifer plantations, but will use open heaths, grasslands and some arable land for feeding. Breeding woodlark are known to nest by digging a shallow scrape, often preferring grassland, heathland and moorland, and will use grassland and arable land for feeding. In winter, woodlark will also gather in small flocks close to their breeding areas, though they can move to farmland stubbles for the autumn and early winter. Dartford warbler show a preference for heathland habitats and gorse, particularly over winter. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments, namely feeding grounds.

Regarding temporal considerations, nightjar are summer residents of the SPA, visiting to breed in lowland heathland before departing the SPA during August. Nightjar are off site by the end of September to migrate to overwintering grounds in Eastern, Sub-Saharan West, and Central Africa. However, woodlark and Dartford warbler are known to overwinter on site. Given that gamebirds would be present on site at the same time as breeding nightjar and breeding/overwintering woodlark and are likely to occupy the same habitats, it is feasible that these features could be exposed to HPAIV transmission from

gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site. However, as with other heathland and woodland SPAs, it is feasible that farmland birds and other passerines that inhabit the SPA and/or adjacent lowland farmland could interact with gamebirds where they are released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Thursley, Hankley and Frensham Commons SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Thursley, Hankley and Frensham Commons SPA ([European Site Conservation Objectives for Thursley, Hankley & Frensham Commons SPA - UK9012131 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives-for-thursley-hankley-frensham-commons-spa-uk9012131)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Wealden Heaths Phase II

This SPA is designated for breeding Dartford warbler (*S. undata*), breeding nightjar (*C. europaeus*), and breeding woodlark (*L. arborea*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9012132 Wealden Heaths Phase II SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9012132-wealden-heaths-phase-ii-spa-published-14-sep-2023). As with Thursley, Hankley and Frensham Commons (Wealden Heaths Phase I), regarding spatial considerations, nightjar visit the SPA to breed in lowland heathland and young conifer plantations, but will use open heaths, grasslands and some arable land for feeding. Breeding woodlark are known to nest by digging a shallow scrape, often preferring grassland, heathland and moorland, and will use grassland and arable land for feeding. In winter, woodlark will also gather in small flocks close to their breeding areas, though they can move to farmland stubbles for the autumn and early winter. Dartford warbler show a preference for heathland habitats and gorse, particularly over winter. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying features could be vulnerable to

indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments, namely feeding grounds.

Regarding temporal considerations, nightjar are summer residents of the SPA, visiting to breed in lowland heathland before departing the SPA during August. Nightjar are off site by the end of September to migrate to overwintering grounds in Eastern, Sub-Sahara West, and Central Africa. However, woodlark and Dartford warbler are known to overwinter on site. Given that gamebirds would be present on site at the same time as breeding nightjar and breeding/overwintering woodlark and are likely to occupy the same habitats, it is feasible that these features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site. However, as with other heathland and woodland SPAs, it is feasible that farmland birds and other passerines that inhabit the SPA and/or adjacent lowland farmland could interact with gamebirds where they are released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Wealden Heaths Phase II SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Wealden Heaths Phase II SPA ([European Site Conservation Objectives for Wealden Heaths Phase II SPA - UK9012132 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/wealden-heaths-phase-ii-spa-uk9012132)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Avon Valley

This SPA is designated for non-breeding Bewick's swan (*Cygnus columbianus bewickii*) and non-breeding gadwall (*Anas strepera*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9011091 Avon Valley SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/avon-valley-spa-uk9011091).

Regarding spatial considerations, the Avon Valley SPA encompasses one of the largest

expanses of unimproved floodplain grassland in Britain as well as a series of gravel pits known as Blashford Lakes. Bewick's swan use short open wet grassland areas for feeding and, usually, open water like lakes, reservoirs, or flooded grassland for roosting. Much of the Avon Valley comprises short, open wet grassland, but the only areas of open water lakes are at Blashford Lakes. However, between 2014/15 and 2017/18, there was a maximum of one individual seen using the SPA and in two of those winters there were no Bewick's Swans sighted in the SPA. NE expert ornithologist advice and available [WeBS](#) data from BTO indicates that Bewick's swan have disappeared from the site but remain a qualifying feature. Gadwall inhabit freshwater bodies year-round, requiring nutrient rich waters with a high abundance of water weed. They mostly use the lakes in winter, and breed along the river and ditches in the valley. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, both qualifying features overwinter on the site from November to March. However, gadwall are known to be present during the breeding season. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, on the [Avon Valley](#) SPA gulls are of particular concern. Blashford Lakes is a nationally important area for roosting lesser black-backed gulls and black-headed gulls are also present. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Both black-headed gulls and lesser black-backed gulls will forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and make use of wetland (including lakes) within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Avon Valley SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Avon Valley SPA ([European Site Conservation Objectives for Avon Valley SPA - UK9011091 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a

potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)

This SPA is designated for non-breeding dark-bellied brent goose (*Branta bernicla bernicla*) and a non-breeding waterbird assemblage of over 20,000 waterbirds that use the site over winter. This assemblage includes bar-tailed godwit (*Limosa lapponica*), black-tailed godwit (*Limosa limosa islandica*), dunlin (*A. alpina schinzii*), golden plover (*P. apricaria*), lapwing (*V. vanellus*), redshank (*T. totanus*), shelduck (*Tadorna tadorna*), and shoveler (*Spatula clypeata*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, dark-bellied brent geese occupy areas of intertidal mud, saltmarsh and grazing marsh within the SPA, while the non-breeding assemblage makes use of coastal grazing marsh, salt meadows, and areas of intertidal mud on site. Waterbirds are known to use grassland and farmland habitats (for moulting, roosting, loafing, and feeding), which are present in proximity to the SPA. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, dark-bellied brent geese arrive through September, with most birds departing in April but some remaining into May. The typical overwintering period runs from October to February. NE advice notes that some species (e.g., black-tailed godwit, lapwing) are resident year-round. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, [WeBS](#) data for the SPA suggests that several species of gull are present, including black-headed gulls, common gulls, and herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as 'negligible' (i.e., zero) for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Crouch and Roach Estuaries SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Crouch and Roach Estuaries SPA ([European Site Conservation Objectives for Crouch & Roach Estuaries \(Mid-Essex Coast Phase 3\) SPA - UK9009244](https://naturalengland.org.uk/naturalengland.org.uk)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Deben Estuary

This SPA is designated for non-breeding dark-bellied brent goose (*B. bernicla bernicla*) and non-breeding avocet (*Recurvirostra avosetta*). The SPA is primarily saltmarsh and intertidal mud flats, but there are also areas of reedswamp, unimproved neutral grassland, and scrub. The estuary is largely surrounded by agricultural land. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/naturalengland.org.uk) Regarding spatial considerations, dark-bellied brent geese occupy areas of intertidal mudflats, saltmarsh, and grazing marsh within the SPA. Avocet occupy intertidal areas, wetland, and grassland habitats. Both species may also utilise grassland and lowland farmland habitats surrounding the SPA. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission via contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, dark-bellied brent geese arrive through September, with most birds departing in April but some remaining into May. The typical overwintering period runs from October to February. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, [WeBS](https://naturalengland.org.uk/naturalengland.org.uk) data for the SPA suggests that several species of gull are present, including black-headed gulls, herring gulls, and great black-backed gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over –

very low. So, with the current level of AI prevalence the risks posed by gamebird release on Deben Estuary SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Deben Estuary SPA ([European Site Conservation Objectives for Deben Estuary SPA - UK9009261 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-deben-estuary-spa-uk9009261)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Tamar Estuaries Complex

This SPA is designated for non-breeding little egret (*Egretta garzetta*) and avocet (*R. avocetta*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/designated-sites-view). Regarding spatial considerations, the SPA is composed of extensive intertidal mudflat communities, areas of mixed muddy sediment, and saltmarsh, which provide important feeding and roosting areas for both overwintering avocet and little egret. Both species may also utilise grassland and lowland farmland habitats surrounding the SPA. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, the typical overwintering period runs from October to February, during which time both little egret and avocet are resident on the SPA. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, [WeBS](#) data for the SPA suggests that several species of gull are present, primarily black-headed gulls and herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as 'negligible' for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – very low. So, with the current level of AI prevalence the risks posed

by gamebird release on Tamar Estuaries Complex SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Tamar Estuaries Complex SPA ([European Site Conservation Objectives for Tamar Estuaries Complex SPA - UK9010141 \(naturalengland.org.uk\)](https://naturalengland.org.uk)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Thames Estuary and Marshes

This SPA is designated for non-breeding populations of avocet (*R. avosetta*), black-tailed godwit (*L. limosa islandica*), dunlin (*C. alpina alpina*), grey plover (*Pluvialis squatarola*), hen harrier (*Circus cyaneus*), knot (*Calidris canutus*), redshank (*T. totanus*), ringed plover (*Charadrius hiaticula*), and a non-breeding waterbird assemblage of over 20,000 birds that includes the species listed above as well as shelduck (*T. tadorna*), Eurasian teal (*Anas crecca*), and pintail (*Anas acuta*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, qualifying features utilise the intertidal mudflats, intertidal saltmarsh, saltmarsh, and intertidal shingle habitats on the SPA, and may utilise grassland and lowland farmland habitats within and adjacent to the SPA. Waterbird use of grassland and farmland habitats (used for moulting, roosting, loafing, and feeding) could pose a risk of direct transmission via contact with gamebirds and/or indirect transmission via spatial overlap of contaminated environments. Over winter hen harrier tend to occupy lowland coastal areas, heathland, and farmland and gather in communal roosts. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014) and can also range widely to hunt in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to roosting sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging.

Regarding temporal considerations, all qualifying features are designated for their non-breeding populations, which overwinter from approximately October to March. This coincides with the period during which gamebirds would be present on the SPA so it is feasible that overwintering features could be exposed to HPAIV transmission from gamebirds both directly through contact with gamebirds and indirectly through shared occupation of contaminated environments.

Regarding bridging species, at Thames Estuary and Marshes species of concern include gulls and farmland bird species (e.g., passerines). In particular, [WeBS](#) data for the SPA suggests that several species of gull are present in significant numbers, including black-headed gulls, herring gulls, common gulls, and great black-backed gulls, and lesser black-backed gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species. Farmland birds are also known to visit grassland and lowland farmland where gamebirds are likely to be released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit. It is also likely that hen harrier would predate upon some of these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'low' risk level range for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – very low; Raptors – negligible; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release, specifically CP, on Thames Estuary and Marshes SPA suggest that management conditions are needed currently to reduce the risk of HPAIV transmission posed by CP.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is above what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of Thames Estuary and Marshes SPA ([Thames Estuary and Marshes SPA - UK9012021A \(naturalengland.org.uk\)](#)). However, as mandatory biosecurity measures will be applied through the GL, which are considered to provide in the order of a twofold reduction in the risk level and provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England, we can conclude that the current risk level following application of biosecurity measures would be sufficiently reduced for CP, and is already very low for RLP. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Alde-Ore Estuary

This SPA is designated for non-breeding avocet (*R. avosetta*); redshank (*T. totanus*); and ruff (*Calidris pugnax*) and breeding marsh harrier (*C. aeruginosus*); avocet (*R. avosetta*); sandwich tern (*Thalasseus sandvicensis*); little tern (*S. albigrons*); and lesser black-backed gull (*L. fuscus*). The SPA encompasses a variety of habitats including vegetated shingle, intertidal mudflats, grazing marsh, saltmarsh, and saline lagoons. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying

features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, the extensive intertidal mudflats located in the Upper Alde Estuary and along the estuary from Snape to North Weir Point are important for avocet, redshank, and ruff. The estuary also provides important feeding habitat for little tern and sandwich tern. The saline lagoons located within the site provide additional feeding grounds for avocet and little tern and, as the tide advances, the saltmarsh becomes an important foraging area for little tern and mudflat feeding species like redshank. As there is potential for these wading birds to move onto the floodplain during high tide, it is likely that qualifying features could encounter released gamebirds or experience spatial overlap of habitats contaminated by gamebirds, which poses a risk of both direct and indirect HPAIV transmission. Lesser black-backed gulls show highly varied habitat use throughout the SPA, utilising the floodplain and intertidal habitats, which poses a risk of transmission via direct contact with gamebirds, as well as indirect transmission via environmental contamination. Marsh harrier can have home ranges several kilometers from nesting territories, often hunting over arable farmland (in proximity to the SPA), saltmarshes, reedbeds, and grasslands. This species is known to predate on waterbird chicks, and female marsh harrier can take larger prey like water rails, wading birds, and potentially pheasant, which NE advice suggests could pose a direct HPAIV transmission risk. As such, there is a risk of direct and indirect HPAIV transmission to all qualifying features of this SPA from release of gamebirds.

Regarding temporal considerations, little tern and sandwich tern are only present on the SPA during the breeding season from April to mid-October. Marsh harrier breed on site and often remain on site following the breeding season at other SPAs, though NE have advised it is unclear whether they remain overwinter on Alde-Ore Estuary SPA. Lesser black-backed gull breed on the SPA but are also recorded overwintering at coastal sites in Britain, so some may remain on site year-round. Avocet are both a breeding and overwintering feature of the SPA and are present on site year-round. Meanwhile redshank and ruff overwinter on site between October and March. As some qualifying features are present on site year-round it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, WeBS data for the SPA ([Alde Estuary](#)) suggests that several other species of gull are present, including herring gulls, black-headed gulls, and great black-backed gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species. Lesser black-backed gulls, while a qualifying feature, also pose a risk of indirect transmission between gamebirds and other qualifying species as they can occupy floodplain habitats, where they could encounter gamebirds, as well as intertidal habitats, which could facilitate transmission to wading species via direct contact or environmental contamination. It is also likely that other waterbirds (e.g., wigeon, teal) present on site

could act as bridging species, particularly between gamebirds and marsh harrier, as they could occupy the same habitats as gamebirds and pose a direct transmission risk to marsh harrier via predation.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on Alde-Ore Estuary SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Alde-Ore Estuary SPA ([European Site Conservation Objectives for Alde-Ore Estuary SPA - UK9009112 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/Alde-Ore-Estuary-SPA-UK9009112)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Broadland

This SPA is designated for breeding bittern (*B. stellaris*) and marsh harrier (*C. aeruginosus*), and non-breeding Bewick's swan (*C. columbianus bewickii*), gadwall (*M. strepera*), hen harrier (*C. cyaneus*), ruff (*C. pugnax*), shoveler (*S. clypeata*), whooper swan (*Cygnus cygnus*), and wigeon (*Mareca penelope*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9009253 Broadland SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/conservation-objectives/Broadland-SPA-UK9009253). Regarding spatial considerations, bittern show a highly localised preference for dense reedbeds and wetland habitat, rarely venturing into open habitats, so are not at risk of direct transmission via contact with gamebirds nor indirect transmission via spatial overlap of contaminated environments. On this SPA marsh harriers are mainly found in areas of reed bed, nesting on the ground within this habitat, and can have home ranges several kilometres from nesting territories, often hunting over nearby arable farmland, saltmarshes, reedbeds, and grasslands, which could bring them into direct contact with gamebirds via predation on CP or indirectly via predation on bridging species. In and around the Broadland SPA, Bewick's swans are known to feed on farmland, which could bring them into contact with gamebirds directly or via spatial overlap of contaminated environments. Similarly, whooper swan roost on open water but feed on open arable fields, where they could be vulnerable to both direct and indirect transmission from gamebirds. While the Eurasian wigeon occupies open wetlands within the Broadland SPA, they also feed on grassland within and adjacent to the site which could bring them into direct contact with gamebirds or facilitate indirect HPAIV transmission via spatial overlap of environments. Hen harrier visit the SPA in winter where they feed on small mammals and

birds within the reedbed and grassland habitats and roost in the woodland, marshes and reedbeds. As such, they are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging in shared habitats. Non-breeding gadwall require generally undisturbed, still, eutrophic waters that have open water and emergent vegetation for feeding. Similarly, ruff visit the SPA in winter and feed within the reedbed and wetland fringe habitats and shoveler are surface feeding ducks, preferring poorly drained treeless meadows interspersed with eutrophic shallow, stagnant freshwater pools and lakes, and rivers with undisturbed creeks. Although wintering diving duck species spend much of their time in deep water, away from typical gamebird habitats, resident dabbling ducks (wigeon, gadwall, shoveler), are known to spend time foraging on the banks, where there is a risk of mingling with gamebirds coming to drink or spatial overlap of contaminated environments, providing routes for both direct and indirect HPAIV transmission. The range of habitats associated with the SPA (canals but also a mosaic of other habitats including grassland) and its qualifying features means that there is a high probability of released gamebirds directly or indirectly interacting with SPA features, and therefore a risk of direct and indirect HPAIV transmission.

Regarding temporal considerations, the breeding season for bittern and marsh harrier is April to August with some birds remaining on site throughout the winter. All the overwintering features are present from October to March. As some qualifying features are present on site year-round, sometimes in significant numbers, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, hen harrier and marsh harrier are present year-round and may directly interact with gamebirds, most significantly through predation of sick individuals or young gamebirds. Owing to the overlapping habitats that these species share with other qualifying features on the site (e.g. marsh harrier and bittern both occupy reedbeds and both species can hunt over a range of habitats) they provide an indirect transmission route between gamebirds and other species on site. It is also likely that other waterbirds present on site could act as bridging species, particularly between gamebirds and marsh harrier, as they could occupy the same habitats as gamebirds and pose a direct transmission risk to hen harrier and marsh harrier via predation.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'low' risk level range for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – very low; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Broadland SPA suggest that management conditions are needed currently to reduce the risk of HPAIV transmission posed by CP.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is above what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of Broadland SPA ([Broadland SPA - UK9009253 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk)). However, as mandatory biosecurity measures

will be applied through the GL, which are considered to provide in the order of a twofold reduction in the risk level and provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England, we can conclude that the current risk level following application of biosecurity measures would be sufficiently reduced for CP, and is already very low for RLP. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Chesil Beach and The Fleet

This SPA is designated for breeding little tern (*S. albifrons*) and non-breeding wigeon (*M. penelope*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, supporting habitats for little tern and wigeon include coastal lagoon, the water column, intertidal sand and muddy sand, intertidal mixed sediments, and intertidal coarse sediments. Wigeon are found throughout most of the site and feed on short vegetation on marshland or grassland, as well as seagrass. Little tern favour sand or shingle for nesting, making use of the shingle beaches within the SPA, and can forage up to 5km from nests. As such, both SPA features could encounter gamebirds directly in shared habitats or indirectly via spatial overlap of contaminated environments, so would be vulnerable to both direct and indirect HPAIV transmission.

Regarding temporal considerations, breeding little tern are typically present from April to September, departing the site in August/September to overwinter on the coast of e.g., West Africa. Wigeon are an overwintering feature, present on site from October to March. As qualifying features are present on site year-round it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, [WeBS](#) data suggests the 'Fleet and Wey' area is an important site for gulls in winter, including black-headed gulls and a smaller number of lesser black-backed gulls. Black-headed gulls have been seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Gulls are known to forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. Gulls also use habitats within the SPA, which could facilitate direct transmission to qualifying features or enable contamination of the habitats they occupy.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – negligible; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Chesil Beach and The Fleet SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Chesil Beach and The Fleet SPA ([European Site Conservation Objectives for Chesil Beach and The Fleet SPA - UK9010091 \(naturalengland.org.uk\)](https://naturalengland.org.uk/naturalengland/conservation-objectives-for-chesil-beach-and-the-fleet-spa-uk9010091)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Chichester and Langstone Harbours

This SPA is designated for breeding common tern (*Sterna hirundo*), little tern (*S. abifrons*), and sandwich tern (*T. Sandvicensis*). It is also designated for non-breeding bar-tailed godwit (*L. lapponica*), curlew (*Numenius arquata*), dark-bellied Brent goose (*B. bernicla bernicla*), dunlin (*C. alpina alpina*), grey plover (*P. squatarola*), pintail (*A. acuta*), red-breasted merganser (*Mergus serrator*), redshank (*T. totanus*), ringed plover (*C. hiaticula*), sanderling (*Calidris alba*), shelduck (*T. tadorna*), shoveler (*S. clypeata*), Eurasian teal (*A. crecca*), turnstone (*Arenaria interpres*), wigeon (*M. penelope*) and a non-breeding waterbird assemblage. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/designated-sites-view). Regarding spatial considerations, all three species of tern favour sand or shingle for nesting, making use of the shingle beaches within the SPA. The overwintering waterfowl and wading species are likely to be found on areas of intertidal mud, coastal grazing marsh, and salt meadows within the SPA, and waterbirds (particularly dark-bellied brent geese) are likely to visit grassland and farmland habitats in proximity to the SPA. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, breeding common, little, and sandwich tern are typically present from April and depart in August/September to overwinter on the coast of e.g., West Africa. All the overwintering features are present on site from October to March. As qualifying features are present on site year-round it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, at Chichester and Langstone Harbours species of concern include gulls and farmland bird species (e.g., passerines). In particular, [WeBS](#) data for the SPA (Chichester Harbour) suggests that several species of gull are present in significant numbers, including black-headed gulls, mediterranean gulls, and herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging

grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species. Farmland birds are also known to visit grassland and lowland farmland where gamebirds are likely to be released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit. It is also likely that hen harrier would predate upon some of these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – negligible; Spill-over – very low and as follows for RLP: Reservoir – very low; Raptors – negligible; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on Chichester and Langstone Harbours SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Chichester and Langstone Harbours SPA ([European Site Conservation Objectives for Chichester and Langstone Harbours SPA - UK9011011 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-chichester-and-langstone-harbours-spa-uk9011011)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Dorset Heathlands

This SPA is designated for breeding Dartford warbler (*S. undata*), nightjar (*C. europaeus*) and woodlark (*L. arborea*) and non-breeding hen harrier (*C. cyaneus*) and merlin (*F. columbarius*). The SPA comprises heathland habitats, including extensive tracts of dry heath, wet heath, and valley mire. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9010101 Dorset Heathlands SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9010101-dorset-heathlands-spa-published-14-sep-2023).

Regarding spatial considerations, breeding nightjar are ground nesting birds typically found on heathlands, moorlands, open woodland, and recently felled conifer plantations. NE has advised that the foraging range of nightjar is known to extend to several kilometres from nest sites (up to 7km) and birds typically forage in non-heathland habitat with a preference for woodland and woodland edges. Breeding woodlark are known to nest by digging a shallow scrape, often preferring grassland, heathland and moorland, and will use grassland and arable land for feeding, favouring large areas of open terrain in and around their nesting, roosting and feeding areas. Woodlark are known to disperse from breeding sites on this SPA in winter and use of the fields around the SPA is considered likely. Dartford warbler favour areas of dense gorse and tall mature heather in which they nest close to the ground. Owing to the potential for gamebirds to be present in habitats in which

woodlark and nightjar forage (e.g., woodland, arable land), and the potential for habitat overlap between Dartford warbler and CP, there is a risk of indirect HPAIV transmission via spatial overlap of contaminated environments. Overwintering hen harrier have a strong association with heather-dominated habitat for cover and protection. Preferred breeding habitat is therefore upland moorland with a high percentage of heather cover and birds may colonise young plantations if there is suitable ground in the wider area, but avoid acid grasslands, extensive mires and continuous high ground. NE has advised that hen harriers regularly forage around Poole harbour and during winter will form communal roosts at night. The location and size of roosts is changeable so it is difficult to predict distribution, but based on a study of hen harrier in SPAs in Scotland, birds tend to stay within 3-4km of nesting areas, and male hen harrier have been recorded up to 8.5km from the nest (Arroyo et al. 2014) during the breeding season and can range widely in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, given their wide-ranging behaviour it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to their moorland breeding sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging. Merlin roost on the SPA over winter and typically nest in shallow scrapes in the ground on mature or degenerate heather moorland. They are generally faithful to their traditional territories, with nest sites used repeatedly from year to year by successive generations. Merlin hunt small mammals, birds and insects, but not usually gamebirds, though the risk of direct transmission via predation on smaller gamebirds cannot be ruled out and they could be at risk from scavenging on infected gamebirds where habitats overlap. As SPA features use habitats into which gamebirds could be released this could pose a risk of direct HPAIV transmission via contact with gamebirds and/or indirect transmission via spatial overlap of contaminated environments.

Regarding temporal considerations, nightjar are summer residents of the SPA, visiting from March to breed in lowland heathland before departing the SPA during August. They are off site by September and migrate to overwintering grounds in Eastern, Sub-Sahara West, and Central Africa. Woodlark and Dartford warbler breed on site from February to June and March to June respectively but are known to overwinter on site and are present year-round. Overwintering hen harrier are present from July to February and merlin are present from September to March. Given that gamebirds would be present on site at the same time as most, if not all, of the qualifying features and are likely to occupy the same habitats, it is feasible that these features could be exposed to HPAIV transmission from gamebirds through direct contact and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site. However, as with other heathland and woodland SPAs, it is feasible that farmland birds and other passerines that inhabit the SPA and/or adjacent lowland farmland could interact with gamebirds where they are released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for both CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Dorset Heathlands SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Dorset Heathlands SPA ([European Site Conservation Objectives for Dorset Heathlands SPA - UK9010101 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-dorset-heathlands-spa-uk9010101)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Foulness (Mid-Essex Coast Phase 5)

This SPA is designated for breeding avocet (*R. avosetta*), ringed plover (*C. hiaticula*), sandwich tern (*S. sandvicensis*), common tern (*S. hirundo*) and little tern (*S. albigrons*). It is also designated for non-breeding dark-bellied brent goose (*B. bernicla bernicla*), hen harrier (*C. cyaneus*), Eurasian oystercatcher (*Haematopus ostralegus*), grey plover (*P. squatarola*), red knot (*C. canutus*), bar-tailed godwit (*L. lapponica*), redshank (*T. totanus*), and an overwintering waterbird assemblage of over 20,000 waterfowl. This assemblage, in addition to the above species, includes shelduck (*T. tadorna*), dunlin (*C. alpina*), and curlew (*T. totanus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/designated-sites-view). Regarding spatial considerations, during the breeding season avocet are known to occupy marshland, while intertidal mudflats and saline lagoons provide feeding habitat. Breeding ringed plover favour open ground like gravel, shingle and sand beaches for nesting. Meanwhile sandwich, common and little tern all favour sand or shingle for nesting and will feed on estuarine habitats. The overwintering waterfowl and wading species are likely to be found throughout the estuary on areas of intertidal mud, coastal grazing marsh, and salt meadows within the SPA, and waterbirds (particularly dark-bellied brent geese) are likely to visit grassland and farmland habitats in proximity to the SPA. Over winter hen harrier likely occupy the wetland/marshland habitats on the SPA, showing preference for lowland coastal areas, heathland, and farmland where they gather in communal roosts. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014) and can also range widely to hunt in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely

that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to roosting sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging. Based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environments.

Regarding temporal considerations, breeding features are typically on site until as late as August, and breeding common, little, and sandwich tern are typically present from April and depart in August/September to overwinter on the coast of e.g., West Africa. All the overwintering features are present on site from October to March. As qualifying features are present on site year-round it is unavoidable that breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, [WeBS](#) data suggests Foulness SPA is part of an important wider site for gulls in winter, including black-headed gulls, common gulls, herring gulls, and a smaller number of lesser black-backed gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. As they will forage in farmland and use habitats within the SPA, there is an elevated risk of indirect infection of SPA features from these bridging species. It is also likely that hen harrier would predate upon some of these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as 'negligible' for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – very low. So, with the current level of AI prevalence the risks posed by gamebird release on Foulness SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Foulness SPA ([European Site Conservation Objectives for Foulness \(Mid-Essex Coast Phase 5\) SPA - UK9009246 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Lower Derwent Valley

This SPA is designated for breeding northern shoveler (*Anas clypeata*) and non-breeding Bewick's swan (*C. columbianus bewickii*), Eurasian wigeon (*A. penelope*), Eurasian teal (*A. crecca*), golden plover (*P. apricaria*), ruff (*Philomachus pugnax*) and an overwintering waterbird assemblage of over 20,000 waterfowl. In addition to the overwintering species listed above, this winter assemblage includes shoveler (*A. clypeata*), pochard (*Aythya ferina*), and whimbrel (*Numenius phaeopus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9006092 Lower Derwent Valley SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/UK9006092-Lower-Derwent-Valley-SPA-Published-14-Sep-2023).

Regarding spatial considerations, NE advice states that breeding shoveler tend to concentrate around North Duffield Carrs, Bank Island and Wheldrake where winter flood water usually remains into early spring. The mosaic of wet grassland and fen vegetation, in close proximity to a network of dykes ditches and pools, provides ideal habitat. Given that this species favours wet grasslands, to which CP are also attracted, poses a risk of HPAIV transmission via direct contact or spatial overlap of contaminated environments. Overwintering Bewick's swan have historically been associated with Bubwith Ings, Aughton Ings and North Duffield Carrs where they feed on soft meadow grasses and adjacent farmland around Aughton and North Duffield. Wigeon are widely distributed across the site where they feed on the seasonally flooded grasslands and make consistent use of some areas (e.g., Wheldrake Ings) each year. Similarly, teal are also widely distributed across the site and feed amongst vegetation such as reed canary grass. NE has advised that Melbourne and Thornton Ings, Ellerton Ings, and Bubwith Ings may be particularly important. Golden plover are found throughout the site and surrounding farmland and are known to leave the site for the Humber Estuary and other coastal sites in periods of severely cold winter weather. Ruff are also widely distributed across the site, occupying areas wherever flooding conditions are suitable. Similarly, additional species (e.g., shoveler, pochard, and whimbrel) which contribute to the overwintering assemblage are supported by the rich food resources of the floodplain meadows and are widely distributed across the SPA. As CP have been seen to show preference for marshy ground and gamebirds are known to occupy farmland into which qualifying features may range to feed, it is likely that qualifying features could be at risk of HPAIV transmission via direct contact in shared habitat, or spatial overlap of contaminated environments. Annex

Regarding temporal considerations, breeding shoveler are on site from March to June, but also form part of the overwintering waterbird assemblage. Overwintering wigeon, teal, golden plover, and the overwintering assemblage are present on site from October to March. Overwintering Bewick's swan arrive later than other species and are on site from December to March. The ruff population is present on site through winter, but migrating birds also occupy the site between late February and April, so populations on site during this period can include both overwintering and passage populations, meaning this species is present on the SPA between October and April. As qualifying features are present on site year-round it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, WeBS data for [Lower Derwent Ings](#) suggests that several species of gull are present, including black-headed gulls, common gulls, and herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'low' risk level range for CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – low; Raptors – negligible; Spill-over – low and as follows for RLP: Reservoir – low; Raptors – negligible; Spill-over – low. So, with the current level of AI prevalence the risks posed by gamebird release on Lower Derwent Valley SPA suggest that management conditions are needed currently to reduce the risk of HPAIV transmission posed by gamebirds.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is above what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of Lower Derwent Valley SPA ([European Site Conservation Objectives for Lower Derwent Valley SPA - UK9006092 \(naturalengland.org.uk\)](#)). While mandatory biosecurity measures will be applied through the GL, which may be considered to provide in the order of a twofold reduction in the risk level, this is expected to reduce the current risk level following application of biosecurity measures to 'low' for both CP and RLP, which, although reduced, would not be sufficient to be considered 'very low' risk. As biosecurity measures alone would not be sufficient to reduce the current risk level to an acceptable level this also suggests that they may not be sufficient to mitigate risk associated with a potential HPAIV incursion following autumn migrations. Other measures such as delayed release dates therefore need to be considered to provide additional mitigation; however, as the SPA has both breeding and non-breeding qualifying features a delayed release date alone would not mitigate against the impact of gamebird release to non-breeding features, which would unavoidably occupy the SPA at the same time as released gamebirds. Consequently, **Defra cannot conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA should not be included in GL45a. Licence-specific conditions would need to be considered through the IL process to determine whether the risk level could be reduced sufficiently to conclude no adverse effect on site integrity.**

Minsmere-Walberswick

This SPA is designated for breeding avocet (*R. avosetta*); bittern (*B. stellaris*); gadwall (*M. strepera*); little tern (*S. albifrons*); marsh harrier (*C. aeruginosus*); nightjar (*C. europaeus*); shoveler (*S. clypeata*); and teal (*A. crecca*) and non-breeding gadwall (*M. strepera*); greater white-fronted goose (*A. albifrons albifrons*); hen harrier (*C. cyaneus*); and shoveler (*S. clypeata*). Supplementary conservation advice re the site, its conservation objectives,

and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, the qualifying features utilise the grazing marsh, estuarine, reedbed, lowland heath, and woodland habitats of the SPA, as well as adjacent habitats like open grassland and arable land. During the breeding season avocet and teal are known to occupy marshland, bittern and marsh harrier breed in reedbeds, breeding gadwall and shoveler occupy wetland habitats, little tern favour sand and shingle habitat for nesting, and nightjar nest in heathland. Overwintering gadwall, hen harrier, and shoveler typically occupy the wetland/marshland habitats, and greater white-fronted geese can be found on wetland and farmland habitats. As SPA features use habitats into which gamebirds could be released this could pose a risk of direct transmission via contact with gamebirds and/or indirect transmission via spatial overlap of contaminated environments. Over winter hen harrier tend to gather in communal roosts. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014) and can also range widely to hunt in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging in proximity to roosting sites. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging. Marsh harrier could similarly be vulnerable to direct transmission as they could be exposed to HPAIV via predation on infected CP (and potentially scavenging of dead CP, though this is less likely) or indirectly via predation on bridging species (e.g., waterbirds).

Regarding temporal considerations, qualifying features are designated for their breeding and/or non-breeding populations. Breeding features are typically on site until as late as August, while overwintering features are on site from approximately October to March. This means that both breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, [WeBS](#) data for the SPA suggests that several species of gull are present, including black-headed gulls, greater black-backed gulls, and common gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. Corvid species are also a concern as they likely interact with the wetland wildfowl, waders, birds of prey, and little tern. NE advice states that gulls and corvids are likely to range throughout SPA habitats, enabling HPAIV transmission via indirect

environmental contamination to habitats that the qualifying SPA features also inhabit. It is also likely that hen harrier would predate upon some of these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as on the boundary of the 'very low' and 'low' risk level ranges for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release, specifically CP, on Minsmere-Walberswick SPA suggest that management conditions should be considered.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is on the 0.001 threshold (for CP) of what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of Minsmere-Walberswick SPA ([European Site Conservation Objectives for Minsmere-Walberswick SPA - UK9009101 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-minsmere-walberswick-spa-uk9009101)). However, as mandatory biosecurity measures will be applied through the GL, which are considered to provide in the order of a twofold reduction in the risk level and provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England, we can conclude that the current risk level following application of biosecurity measures would be sufficiently reduced for CP, and is already 'negligible' for RLP. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

New Forest

This SPA is designated for breeding Dartford warbler (*S. undata*), hobby (*Falco Subbuteo*), honey buzzard (*Pernis apivorus*), nightjar (*C. europaeus*), wood warbler (*Phylloscopus sibilatrix*), and woodlark (*L. arborea*) and non-breeding hen harrier (*C. cyaneus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9011031 The New Forest SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9011031-the-new-forest-spa-published-14-sep-2023). Regarding spatial considerations, several of the SPA features (Dartford warbler, nightjar, woodlark, hobby) are known to utilise lowland heathland and woodland throughout the SPA. Breeding nightjar are ground nesting birds typically found on heathlands, moorlands, open woodland, and recently felled conifer plantations. Nightjar typically forage in non-heathland habitat with a preference for woodland and woodland edges and are known to forage up to 2km from nesting areas in open forest and heathland and will make use of land outside of the SPA for foraging. Hobbies in the New Forest breed in open lowland heathland and woodland. Dartford warbler primarily occupy mature lowland heathland, and particularly favour areas of tall, dense gorse and tall mature heather for nesting. Wood warblers occupy broad-leaved woodland and nest on or close to the ground in relatively open ground vegetation, avoiding areas of dense shrub or understorey. Wood warbler are considered unlikely to interact with gamebirds or bridging species. Honey buzzard nest in secluded mature woodland and the home range of breeding birds can extend to 4km from their nests. The principal habitat of overwintering hen harrier is lowland heathland, where

they occupy communal roosts in mature dry heath. Based on a study of hen harrier in SPAs in Scotland, male hen harrier have been recorded up to 8.5km from the nest (Arroyo et al. 2014) during the breeding season and can range widely in winter. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments, namely feeding grounds.

Regarding temporal considerations, different breeding features are present throughout the summer months from April to September. The most significant numbers of nightjar are on site from May to September, hobby are on site from May to August, honey buzzard are on site from April to September, wood warbler are present from April to August, Dartford warbler are present in highest numbers from April to June, and woodlark are on site from February to June. Both Dartford warbler and woodlark are known to remain on site over winter. Overwintering hen harrier are present from October to March. As such, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, NE advice has not raised the presence of any bridging species of note at this site. However, as with other heathland and woodland SPAs, it is feasible that farmland birds and other passerines that inhabit the SPA and/or adjacent lowland farmland could interact with gamebirds where they are released as well as habitats throughout the SPA, enabling HPAIV transmission via environmental contamination to habitats that the protected SPA features also inhabit.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on New Forest SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of New Forest SPA ([European Site Conservation Objectives for New Forest SPA - UK9011031 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/conservation-objectives/conservation-objectives-for-new-forest-spa-uk9011031)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

North Norfolk Coast

This SPA is designated for breeding bittern (*B. Stellaris*), marsh harrier (*C. aeruginosus*), Montagu's harrier (*Circus pygargus*), avocet (*R. avosetta*), sandwich tern (*T. sandvicensis*), common tern (*S. hirundo*), and little tern (*S. albifrons*). It is also designated for non-breeding dark-bellied brent goose (*B. bernicla bernicla*), knot (*C. canutus*), pink-footed goose (*Anser brachyrhynchus*), wigeon (*M. penelope*) and an overwintering waterbird assemblage of over 10,000 waterfowl (average over 20,000). In addition to the overwintering species listed above, this winter assemblage includes European white-fronted geese (*Anser albifrons albifrons*), shelducks (*T. tadorna*), grey plovers (*P. squatarola*), ringed plovers (*C. hiaticula*), oystercatchers (*H. ostralegus*), and redshanks (*T. totanus*). The SPA encompasses a variety of coastal habitats, including intertidal mudflats and sandflats, coastal waters, saltmarshes, shingle, sand dunes, freshwater grazing marshes, and reedbeds. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, breeding bittern show a highly localised preference for dense reedbeds and wetland habitat, rarely venturing into open habitats, so are not at risk of direct transmission via contact with gamebirds nor indirect transmission via spatial overlap of contaminated environments. Marsh harrier are wetland raptors and are mainly found nesting on the ground in areas of reed bed and can have home ranges several kilometres from nesting territories, often hunting over nearby arable farmland, saltmarshes, reedbeds, and grasslands. Their diets can be very varied (ranging from insects and amphibians to small mammals) and includes birds, which could bring them into direct contact with gamebirds via predation on smaller gamebirds or indirectly via predation on bridging species. Montagu's harrier typically occupy farmland, wetland, and grassland habitats, but 2023 advice from NE confirmed that there are no longer any individuals present on the SPA, so impacts are not reviewed here. Breeding avocet are known to occupy marshland and intertidal mudflats and saline lagoons provide feeding habitat, while all three species of tern favour sand or shingle for nesting, making use of the sand and shingle beaches within the SPA. Overwintering waterbirds utilise a wide range of habitats across the SPA as well as adjacent grassland, lowland farmland, and coastal waters. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying breeding and overwintering features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments.

Regarding temporal considerations, breeding birds are present in the spring and summer, though some features are present year-round. Breeding avocet are on site from March to August, bittern breed and then remain on site over winter so are present year-round, marsh harrier are present from March to October, Montagu's harrier (if they were still observed on site) would usually be present from March to September. Common, little and sandwich tern all breed on site from April to August. Overwintering species are generally present from October to March, but some arrive earlier/depart later than other species. For example, dark-bellied brent geese overwinter on site from October to May, knot from August to March, and pink-footed geese and wigeon are on site from September to March.

As qualifying features are present on site year-round it is unavoidable that breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, at North Norfolk Coast [WeBS](#) data indicates they likely include gulls, including black-headed gull, herring gull, common gull, and great black-backed gull. Black-headed gulls have been seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species. Wildfowl can also feed in various habitats across the SPA and visit agricultural land to feed, which could bring them into direct contact with released gamebirds or subject them to indirect transmission via spatial overlap of contaminated environments. Wildfowl could then facilitate transmission via environmental contamination of wetlands (where they bathe/roost) occupied by qualifying features. NE has advised that wintering bird species on the North Norfolk Coast are highly likely to interact with gamebirds and/or bridging species. Marsh harrier and Montagu's harrier (if present) may also be susceptible to indirect HPAIV transmission via the bridging species that they prey upon. The typical diet of marsh harrier can be very varied (ranging from insects and amphibians to small mammals) but is known to regularly include birds, such as the chicks of waterbirds. Female harriers, which are larger, can also target larger prey including moorhens, water rails and wading birds.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as 'negligible' for CP and within the 'very low' risk level range for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – very low; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on North Norfolk Coast SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of North Norfolk Coast SPA ([European Site Conservation Objectives for North Norfolk Coast SPA - UK9009031 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra**

can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.

Salisbury Plain

This SPA is designated for breeding hobby (*F. subbuteo*), quail (*Coturnix coturnix*), and stone curlew (*B. oediacnemus*) and non-breeding hen harrier (*C. cyaneus*). Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [UK9011102 Salisbury Plain SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9011102-salisbury-plain-spa-published-14-sep-2023). Regarding spatial considerations, breeding hobby inhabit small woods within and close to the SPA, while quail nest and feed on chalk grassland and arable habitats, particularly meadows and winter cereals. The main supporting habitat for stone-curlew is grassland and arable, and they are known to mainly breed on cultivated plots within grassland and scrapes in military training areas. As RLP often prefer open habitat and CP are more likely to occupy woodland and grassland areas, it is feasible that the qualifying breeding features could be vulnerable to indirect HPAIV transmission from released gamebirds through spatial overlap of contaminated environments. The main supporting habitats for non-breeding hen harrier on the SPA are grasslands and arable land. They are known to forage over a wide area on the SPA, including military training areas, farmland, and winter stubbles. Based on a study of hen harrier in SPAs in Scotland, hen harrier tend to stay within 3-4km of nesting areas during the breeding season, but males have been recorded up to 8.5km from the nest (Arroyo et al. 2014) and they are known to range widely in winter. Feeding sources typically comprise small mammals and birds but can include prey as large as grouse, waders, and young rabbits and they could feasibly hunt both RLP and CP (Nota et al. 2019). They are also likely to scavenge dead gamebirds. As such, it is likely that gamebirds would be released into areas where they could encounter hen harrier foraging. Hen harrier are considered highly susceptible to HPAIV transmission from gamebirds via direct contact through predation and scavenging.

Regarding temporal considerations, hen harrier are typically present in highest numbers from October to March. Breeding hobby are present from May to August, quail are present from May to July, and stone-curlew are present in significant numbers from April to August. However, NE expert ornithologists have previously advised that stone-curlew can remain on the SPA into October, where they form post-breeding roosts. The heightened risk for these flocks is that if one bird becomes infected with HPAIV the whole flock could be affected. As some qualifying features are present on site year-round, sometimes in significant numbers, it is unavoidable that gamebirds would be released on site while the qualifying features are present, providing the potential for both direct and indirect HPAIV transmission.

Regarding bridging species, at Salisbury Plain species of concern include gulls ([WeBS](#) data for a site to the south of the SPA suggests a small population of black-headed gull, and a small number of lesser black-backed gull and herring gull have been sighted in the area) and corvids, which are likely to range throughout SPA and adjacent habitats (e.g. arable land) occupied by gamebirds and qualifying species, enabling HPAIV transmission via indirect environmental contamination to habitats that the qualifying SPA features also inhabit. It is also likely that hen harrier would predate upon small farmland bird species

(e.g., passerines) in winter, which may provide an indirect transmission route between gamebirds and birds of prey.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – negligible; Raptors – very low; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Salisbury Plain SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Salisbury Plain SPA ([European Site Conservation Objectives for Salisbury Plain SPA - UK9011102 \(naturalengland.org.uk\)](https://naturalengland.org.uk/european-site-conservation-objectives-for-salisbury-plain-spa-uk9011102)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Solent and Southampton Water

This SPA is designated for breeding common tern (*S. hirundo*), little tern (*S. albigrons*), mediterranean gull (*Ichthyaetus melanocephalus*), roseate tern (*Sterna dougallii*), and sandwich tern (*T. sandvicensis*). It is also designated for non-breeding black-tailed godwit (*L. limosa islandica*), dark-bellied brent goose (*B. bernicla bernicla*), ringed plover (*C. hiaticula*), teal (*A. crecca*), and an overwintering waterbird assemblage of over 20,000 waterfowl. The site comprises a series of estuaries and harbours featuring extensive mudflats and saltmarshes, and adjacent coastal habitats include saline lagoons, shingle beaches, reedbeds, damp woodland and grazing marsh. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/designated-sites-view). Regarding spatial considerations, common tern, sandwich tern and little tern nest colonially in simple shallow 'scrapes' on areas of sand or shingle, making use of the beaches within the SPA and foraging alone or in small flocks taking food from the surface of the water. The saline lagoons and saltmarsh located adjacent to the site likely provide additional feeding grounds for these species. Similarly, roseate terns nest in colonies, alongside other terns, on low-lying rocky islets typically in shallow scrapes under overhanging vegetation. They also feed in shallow coastal waters. Mediterranean gulls nest colonially in short to medium swards of vegetation, and sometimes on vegetated shingle islands. They forage in shallow coastal waters close to their breeding sites as well as in arable fields and intertidal areas along the coastline. Overwintering black-tailed godwit roost in areas with extensive stretches of bare ground or short vegetation and feed mostly on worms in the mudflats whilst the tide is out. Dark-bellied brent geese typically occupy areas of intertidal mudflats,

saltmarsh, and grazing marsh and roost on water overnight close to preferred feeding areas. In the Solent and Southampton Water SPA, dark-bellied brent geese show diverse feeding habits and will feed on seagrass beds as well as adjacent farmland, pasture, amenity grasslands, and coastal grazing marsh. Ringed plover prefer to roost on sandbanks, bare arable fields, or in low vegetation and feed on mudflats and saltmarshes. Overwintering teal roost on open water and forage on mudflats, creeks, and saltmarsh. Regarding the overwintering waterbird assemblage, the population is comprised of all native waterbirds that use the site, excluding gulls and terns. The waterbird assemblage roosts in habitats throughout the SPA. Ducks and geese roost mostly on open water whilst waders roost on bare ground or arable fields with low vegetation. The assemblage feeds throughout the site on intertidal sediments, open water, small waterbodies, and on inland fields and grazing marsh. It should be noted that waterbirds (particularly dark-bellied brent geese, mediterranean gulls, and some of the waterbird assemblage) are likely to visit grassland and farmland habitats in proximity to the SPA to forage. As such, based on the habitat preferences of gamebirds and the qualifying features of the SPA, there is potential for direct transmission through contact in shared habitat, or through spatial overlap of contaminated farmland and grassland environment.

Regarding temporal considerations, breeding birds are present in the spring and summer, though some features are present year-round. Breeding common tern, little tern, and sandwich tern are present from April to August, while roseate tern and mediterranean gull generally arriving from May and leave in August. Overwintering features are typically present from October to March, as is the case for dark-bellied brent geese. However, black-tailed godwit are on site from July to April, ringed plover are present for much of the year (August to May) and teal are on site from September to March. As qualifying features are present on site year-round it is unavoidable that breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, [WeBS](#) for part of the SPA (Beaulieu Estuary) suggests this is an important site for gulls, including black-headed gulls and smaller numbers of herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors –

negligible; Spill-over – very low and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Solent and Southampton Water SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Solent and Southampton Waters SPA ([European Site Conservation Objectives for Solent and Southampton Water SPA - UK9011061 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/conservation-objectives-for-solent-and-southampton-water-spa-uk9011061)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

Stour and Orwell Estuaries

This SPA is designated for breeding avocet (*R. avosetta*) and non-breeding black-tailed godwit (*L. limosa islandica*) dark-bellied brent goose (*B. bernicla bernicla*), dunlin (*C. alpina alpina*), grey plover (*P. squatarola*), knot (*C. canutus*), pintail (*A. acuta*), redshank (*T. totanus*), and an assemblage of over 20,000 waterbirds. In the non-breeding season, the area regularly supports 63,017 individual waterbirds. In addition to the above non-breeding features this includes great crested grebe (*Podiceps cristatus*), cormorant (*Phalacrocorax carbo*), wigeon (*A. penelope*), gadwall (*A. strepera*), goldeneye (*Bucephala clangula*), ringed plover (*C. hiaticula*), lapwing (*V. vanellus*), curlew (*N. arquata*), and turnstone (*A. interpres*). The SPA estuaries include extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The site also includes areas of low-lying grazing marsh and several shallow freshwater pools. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://www.naturalengland.org.uk/designated-sites-view). Regarding spatial considerations, breeding avocet nest on grazing marshes and feed on intertidal mudflats and saline lagoons. Many of the overwintering features and waterbird assemblage also make use of the grazing marshes, particularly grey plover, dark-bellied brent geese, dunlin and knot and arable land surrounding the SPA is used by many waders, as well as dark-bellied brent geese, for feeding and roosting. As CP have been seen to show preference for marshy ground and gamebirds are known to occupy arable land into which qualifying features may range to roost and feed, it is likely that qualifying features could be at risk of HPAIV transmission via direct contact in shared habitat, or spatial overlap of contaminated environments.

Regarding temporal considerations, qualifying features are designated for their breeding and/or non-breeding populations. Breeding avocet are typically on site from March to August, while overwintering features are on site from approximately October to March. This means that both breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation

prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, WeBS data for parts of the SPA ([Orwell Estuary](#) and [Stour Estuary](#)) suggests that several species of gull are present, including black-headed gulls, lesser black-backed gulls, great black-backed gulls, and herring gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Black-headed gulls and other gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'very low' risk level range for CP and RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – very low; Raptors – negligible; Spill-over – negligible and as follows for RLP: Reservoir – very low; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by gamebird release on Stour and Orwell Estuaries SPA suggest that no management conditions are needed currently.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is sufficiently low that release is not likely to adversely affect the Conservation Objectives of Stour and Orwell Estuaries SPA ([European Site Conservation Objectives for Stour and Orwell Estuaries SPA - UK9009121 \(naturalengland.org.uk\)](#)) through impacts to the abundance objectives. Although management conditions are not currently deemed necessary, the application of mandatory biosecurity measures through the GL will provide proactive mitigation against the risk of HPAIV incursion following autumn migrations of wild birds into England and a potential increase in risk level over time. Consequently, **Defra can conclude that the release of gamebirds under a GL will not have an adverse effect on site integrity and as such this SPA can be included in GL45a.**

The Wash

This SPA is designated for breeding common tern (*S. hirundo*) and little tern (*S. albifrons*). It is also designated for a substantial number of non-breeding birds including bar-tailed godwit (*L. lapponica*), Bewick's swan (*C. columbianus bewickii*), black-tailed godwit (*L. limosa islandica*), common scoter (*Melanitta nigra*), curlew (*N. arquata*), dark-bellied Brent goose (*B. bernicla bernicla*), dunlin (*C. alpina alpina*), gadwall (*M. strepera*), goldeneye (*B. clangula*), grey plover (*P. squatarola*), knot (*C. canutus*), oystercatcher (*H. ostralegus*), pink-footed goose (*A. brachyrhynchus*), pintail (*A. acuta*), redshank (*T. totanus*), sanderling (*C. alba*), shelduck (*T. tadorna*), turnstone (*A. interpres*), wigeon (*M. penelope*) and an overwintering waterbird assemblage. The Wash SPA is composed of a range of

coastal and aquatic habitats (including tidal rivers, estuaries, lagoons, mud and sand flats, saltmarsh, sandy and shingle beaches) that provide foraging habitat for a wide range of bird species. Agricultural land and pasture adjacent to the SPA also provides critical supporting habitat and is used for foraging by many of the species. Supplementary conservation advice re the site, its conservation objectives, and the status of its qualifying features can be found here: [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk). Regarding spatial considerations, breeding common tern and little tern nest colonially in simple shallow 'scrapes' on areas of sand or shingle, making use of the beaches within the SPA and foraging alone or in small flocks taking food from the surface of the water. Owing to the distinctly different habitat preferences of little tern and gamebirds, there is low risk of direct transmission from contact with gamebirds or indirect transmission via spatial overlap of contaminated environments. Overwintering features utilise habitats throughout the SPA, including the intertidal mudflats, intertidal saltmarsh, saline lagoons, saltmarsh, and intertidal shingle habitats, and many species (e.g., pink-footed goose, curlew, oystercatcher, dunlin and black-tailed godwit) rely on nearby farmland and grassland for foraging. As CP have been seen to show preference for marshy ground and gamebirds are known to occupy arable land and grassland into which waterbirds may range to roost and feed, it is likely that qualifying features could be at risk of HPAIV transmission via direct contact in shared habitat, or spatial overlap of contaminated environments.

Regarding temporal considerations, breeding common tern and little tern are present on site from April to August, and depart in August/September to overwinter on the coast of e.g., West Africa. Overwintering features are typically present from October to March. As qualifying features are present on site year-round it is unavoidable that breeding and overwintering features are likely to be present on site at the same time as gamebirds would be pre and/or post-release (i.e., during acclimation prior to release in July/August and then during the October-February shooting season). As such, it is feasible that both breeding and overwintering features could be exposed to HPAIV transmission from gamebirds directly through contact with gamebirds occupying the same habitat and/or indirectly through shared occupation of contaminated environments.

Regarding bridging species, overwintering bird species at The Wash are considered highly likely to interact with gamebirds and/or bridging species. [WeBS](#) data suggests that several species of gull are present, including black-headed gulls, herring gulls, common gulls, great black-backed gulls, and lesser-black backed gulls. Black-headed gulls were seriously impacted by HPAIV on their breeding grounds in 2023 and must be considered highly susceptible to HPAIV infection. Gull species forage in grassland and arable land, where they could come into direct contact with gamebirds or be exposed to HPAIV via shared use of contaminated foraging grounds. As gulls will forage in farmland and roost within the SPA, there is an elevated risk of indirect transmission to SPA features from these bridging species.

The GWRAT identifies the risk posed to the SPA conservation objectives by release of gamebird species, based on the current HPAIV situation, as within the 'low' risk level range for CP and 'negligible' for RLP. Specifically, the potential impact of gamebird release on the feature groups is as follows for CP: Reservoir – low; Raptors – negligible;

Spill-over – negligible and as follows for RLP: Reservoir – negligible; Raptors – negligible; Spill-over – negligible. So, with the current level of AI prevalence the risks posed by pheasant release on The Wash SPA suggest that management conditions are needed currently to reduce the risk of HPAIV transmission posed by CP.

The likelihood of HPAIV incursion from gamebird release, based on the results of the GWRAT, is above what is considered an acceptable level below which gamebird release is not likely to adversely affect the Conservation Objectives of The Wash SPA ([European Site Conservation Objectives for The Wash SPA - UK9008021 \(naturalengland.org.uk\)](https://www.naturalengland.org.uk)). While mandatory biosecurity measures will be applied through the GL, which may be considered to provide in the order of a twofold reduction in the risk level, this is expected to reduce the current risk level following application of biosecurity measures to 'low' for CP, which is still above the acceptable level of 'very low'. As biosecurity measures alone would not be sufficient to reduce the current risk level to an acceptable level this also suggests that they may not be sufficient to mitigate risk associated with a potential HPAIV incursion following autumn migrations. Other measures such as delayed release dates therefore need to be considered to provide additional mitigation; however, as the SPA has both breeding and non-breeding qualifying features a delayed release date for CP alone would not mitigate against the impact of gamebird release to non-breeding features, which would unavoidably occupy the SPA at the same time as released gamebirds. Consequently, **Defra cannot conclude that the release of CP under a GL will not have an adverse effect on site integrity and as such the release of CP on this SPA should not be included in GL45a. Licence-specific conditions would need to be considered through the IL process to determine whether the risk level could be reduced sufficiently to conclude no adverse effect on site integrity. However, as the risk posed by RLP release is negligible, Defra can conclude that the release of RLP under a GL will not have an adverse effect on site integrity and as such RLP release on this SPA can be included in GL45a.**

Conclusions on Site Integrity

Regarding the consideration of this project in combination with other plans and projects, Defra is not aware of any plans or projects, other than gamebird releases under GL45 and any individual licences that might be issued for gamebird release in 2024, that would impact HPAIV transmission on SPAs in England during the 2024 gamebird release season. The GWRAT is sensitive to the numbers of gamebirds released into the SPA. Defra has taken a precautionary approach to the numbers entered into the assessments by using the total number of gamebird releases applied for in 2023 as an estimate of numbers that could be released per SPA in 2024 as opposed to the lower number of gamebirds that were licensed for release in 2024. As the GWRAT produces an estimate of risk informed by the total number of birds estimated to be released per SPA in 2024, Defra can evaluate the likely risk of the total number of birds released by multiple users acting under the licence per SPA (i.e., in combination). SPAs for which the risk level is considered too high have had additional mitigation measures applied as appropriate or have been removed from the GL and will have to go through the individual licensing

process for 2024. As such, Defra can conclude that this project will not have an adverse effect on site integrity in combination with other plans and projects.

Defra can ascertain that, based on available evidence, under a medium national risk level the project (the proposed GL45a) will not have an adverse effect on the integrity of SPA sites listed below, either alone or in combination with other plans and projects. Defra will continue to incorporate the majority of measures recommended by NE in the 2022 and 2023 proposals into the 2024 licence, consistent with GL43, and is content that a conclusion of no adverse effect on the integrity of the SPAs listed below either alone or in combination with other plans and projects can still be made, including over the period of the licence. The risk from HPAIV will be monitored and reviewed over the licence period. SPAs to be included in GL45a under a medium HPAIV risk scenario are as follows:

1. Benacre to Eastern Bavents
2. Breckland
3. Bowland Fells
4. Flamborough and Filey Coast
5. Leighton Moss
6. North Pennine Moors
7. North York Moors
8. Peak District Moors (with a delayed release date for CP)
9. Sandlings
10. South Pennine Moors
11. Thursley, Hankley and Frensham Commons
12. Wealden Heaths Phase II
13. Avon Valley
14. Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)
15. Deben Estuary
16. Tamar Estuaries Complex
17. Thames Estuary and Marshes
18. Alde-Ore Estuary
19. Broadland
20. Chesil Beach and The Fleet
21. Chichester and Langstone Harbours
22. Dorset Heathlands
23. Foulness (Mid-Essex Coast Phase 5)
24. Minsmere-Walberswick
25. New Forest
26. North Norfolk Coast
27. Salisbury Plain
28. Solent and Southampton Water
29. Stour and Orwell Estuaries
30. The Wash (for RLP only)

The following sites are not currently considered suitable for inclusion in GL45a under a medium risk scenario owing to an inability to conclude no adverse effect on site integrity:

1. Lower Derwent Valley

Should the HPAIV national risk to wild birds move to 'low', Defra can ascertain that the project (the proposed GL45b) will not have an adverse effect on the integrity of SPA sites listed below, either alone or in combination with other plans and projects. Under this scenario the risk from avian influenza will continue to be monitored and reviewed over the licence period. Subject to any new evidence our conclusions on site integrity and/or the licence may be revoked or amended accordingly.

Annex A: 2024 general licence proposals under medium, low, and very low HPAIV risk scenarios on which Defra's HRA is based

Scope of the GL

Medium risk scenario – GL45a

The GL will apply to releases on selected SPAs in England and on a 500m buffer zone around them and will include SPA-specific conditions i.e., delayed release dates.

Defra considers the following SPAs to be in scope for the release of gamebirds under GL45a in a medium HPAIV risk scenario.

1. Benacre to Eastern Bavents
2. Breckland
3. Bowland Fells
4. Flamborough and Filey Coast
5. Leighton Moss
6. North Pennine Moors
7. North York Moors
8. Peak District Moors (with a delayed release date for CP)
9. Sandlings
10. South Pennine Moors
11. Thursley, Hankley and Frensham Commons
12. Wealden Heaths Phase II
13. Avon Valley
14. Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)
15. Deben Estuary
16. Tamar Estuaries Complex
17. Thames Estuary and Marshes
18. Alde-Ore Estuary
19. Broadland
20. Chesil Beach and The Fleet
21. Chichester and Langstone Harbours
22. Dorset Heathlands

23. Foulness (Mid-Essex Coast Phase 5)
24. Minsmere-Walberswick
25. New Forest
26. North Norfolk Coast
27. Salisbury Plain
28. Solent and Southampton Water
29. Stour and Orwell Estuaries
30. The Wash (for RLP only)

Low risk scenario – GL45b

The GL will apply to releases on all SPAs in England, including those that did not receive any individual licence applications in 2023, and on a 500m buffer zone around them. The GL will not include SPA-specific conditions.

Application of the GL

Medium and low risk scenarios

Any gamebird release activity subject to enforcement action by NE cannot operate under the GL. Releases in such circumstances would require an application for an individual licence to be made to Defra.

Anyone who is unable to comply with the conditions of the GL is required to apply for an individual licence from Defra.

Conditions for releases on a SPA

See GL45a for a full list of conditions covering gamebird release densities, reporting of release activity, mandatory testing, activity in the buffer zone, biosecurity measures, bird carcass disposal, compliance and monitoring, SPA-specific conditions, and non-mandatory advice.

Annex B: SPAs considered for inclusion in GL45 under a medium HPAIV risk scenario and the features for which they are notified

Note: Defra will decide on inclusion of any SPA with release date after 01/09 once the risk assessment tool can assess an earlier release date. Releases after 01/09 may not be practicable owing to breeding season of gamebirds.

Number	SPA	Notified features	Breeding or overwintering population
1	Benacre to Eastern Barents	Bittern, <i>Botaurus stellaris</i> - A021, b	Breeding
1	Benacre to Eastern Barents	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
1	Benacre to Eastern Barents	Marsh Harrier, <i>Circus aeruginosus</i> - A081, b	Breeding
2	Breckland	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
2	Breckland	Stone-curlew, <i>Burhinus oedicephalus</i> - A133, b	Breeding
2	Breckland	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
3	Bowland Fells	Lesser black-backed gull, <i>Larus fuscus</i> - A183, b	Breeding
3	Bowland Fells	Hen harrier, <i>Circus cyaneus</i> - A082, b	Breeding
3	Bowland Fells	Merlin, <i>Falco columbarius</i> - A098, b	Breeding
4	Flamborough and Filey Coast	Gannet, <i>Morus bassanus</i> - A016, b	Breeding
4	Flamborough and Filey Coast	Guillemot, <i>Uria aalge</i> - A199, b	Breeding
4	Flamborough and Filey Coast	Kittiwake, <i>Rissa tridactyla</i> - A188, b	Breeding
4	Flamborough and Filey Coast	Razorbill, <i>Alca torda</i> - A200, b	Breeding
4	Flamborough and Filey Coast	Seabird assemblage	Breeding
5	Leighton Moss	Bittern, <i>Botaurus stellaris</i> - A021, b	Breeding
6	North Pennine Moors	Golden plover, <i>Pluvialis apricaria</i> - A140, b	Breeding
6	North Pennine Moors	Hen harrier, <i>Circus cyaneus</i> - A082, b	Breeding
6	North Pennine Moors	Merlin, <i>Falco columbarius</i> - A098, b	Breeding
6	North Pennine Moors	Peregrine, <i>Falco peregrinus</i> - A103, b	Breeding
7	North York Moors	Golden plover, <i>Pluvialis apricaria</i> - A140, b	Breeding
7	North York Moors	Merlin, <i>Falco columbarius</i> - A098, b	Breeding
8	Peak District Moors	Golden plover, <i>Pluvialis apricaria</i> - A140, b	Breeding
8	Peak District Moors	Merlin, <i>Falco columbarius</i> - A098, b	Breeding
8	Peak District Moors	Short-eared owl, <i>Asio flammeus</i> - A222, b	Breeding
9	Sandlings	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
9	Sandlings	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
10	South Pennine Moors	Breeding bird assemblage	Breeding
10	South Pennine Moors	Golden plover, <i>Pluvialis apricaria</i> - A140, b	Breeding
10	South Pennine Moors	Merlin, <i>Falco columbarius</i> - A098, b	Breeding

Number	SPA	Notified features	Breeding or overwintering population
11	Thursley, Hankley and Frensham Commons	Dartford warbler, <i>Sylvia undata</i> - A302, b	Breeding
11	Thursley, Hankley and Frensham Commons	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
11	Thursley, Hankley and Frensham Commons	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
12	Wealden Heaths Phase II	Dartford warbler, <i>Sylvia undata</i> - A302, b	Breeding
12	Wealden Heaths Phase II	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
12	Wealden Heaths Phase II	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
13	Avon Valley	Bewick's swan, <i>Cygnus columbianus bewickii</i> - A037, nb	Non-breeding
13	Avon Valley	Gadwall, <i>Mareca strepera</i> - A051, nb	Non-breeding
14	Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
14	Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)	Waterbird assemblage	Non-breeding
15	Deben Estuary	Avocet, <i>Recurvirostra avosetta</i> - A132-A, nb	Non-breeding
15	Deben Estuary	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
16	Tamar Estuaries Complex	Avocet, <i>Recurvirostra avosetta</i> - A132-A, nb	Non-breeding
16	Tamar Estuaries Complex	Little egret, <i>Egretta garzetta</i> - A026, nb	Non-breeding
17	Thames Estuary and Marshes	Avocet, <i>Recurvirostra avosetta</i> - A132-A, nb	Non-breeding
17	Thames Estuary and Marshes	Black-tailed godwit, <i>Limosa limosa islandica</i> - A616, nb	Non-breeding
17	Thames Estuary and Marshes	Dunlin, <i>Calidris alpina alpina</i> - A672, nb	Non-breeding
17	Thames Estuary and Marshes	Grey plover, <i>Pluvialis squatarola</i> - A141, nb	Non-breeding
17	Thames Estuary and Marshes	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
17	Thames Estuary and Marshes	Knot, <i>Calidris canutus</i> - A143, nb	Non-breeding
17	Thames Estuary and Marshes	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding
17	Thames Estuary and Marshes	Ringed plover, <i>Charadrius hiaticula</i> - A137, nb	Non-breeding
17	Thames Estuary and Marshes	Waterbird assemblage	Non-breeding
18	Alde-Ore Estuary	Avocet, <i>Recurvirostra avosetta</i> - A132-A, b	Breeding

Number	SPA	Notified features	Breeding or overwintering population
18	Alde-Ore Estuary	Avocet, <i>Recurvirostra avosetta</i> - A132-A, nb	Non-breeding
18	Alde-Ore Estuary	Lesser black-backed gull, <i>Larus fuscus</i> - A183, b	Breeding
18	Alde-Ore Estuary	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
18	Alde-Ore Estuary	Marsh Harrier, <i>Circus aeruginosus</i> - A081, b	Breeding
18	Alde-Ore Estuary	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding
18	Alde-Ore Estuary	Ruff, <i>Calidris pugnax</i> - A151, nb	Non-breeding
18	Alde-Ore Estuary	Sandwich tern, <i>Thalasseus sandvicensis</i> - A191, b	Breeding
19	Broadland	Bewick's swan, <i>Cygnus columbianus bewickii</i> - A037, nb	Non-breeding
19	Broadland	Bittern, <i>Botaurus stellaris</i> - A021, b	Breeding
19	Broadland	Gadwall, <i>Mareca strepera</i> - A051, nb	Non-breeding
19	Broadland	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
19	Broadland	Marsh Harrier, <i>Circus aeruginosus</i> - A081, b	Breeding
19	Broadland	Ruff, <i>Calidris pugnax</i> - A151, nb	Non-breeding
19	Broadland	Shoveler, <i>Spatula clypeata</i> - A056, nb	Non-breeding
19	Broadland	Whooper swan, <i>Cygnus cygnus</i> - A038-B, nb	Non-breeding
20	Chesil Beach and The Fleet	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
20	Chesil Beach and The Fleet	Wigeon, <i>Mareca penelope</i> - A050, nb	Non-breeding
21	Chichester and Langstone Harbours	Bar-tailed godwit, <i>Limosa lapponica</i> - A157, nb	Non-breeding
21	Chichester and Langstone Harbours	Common tern, <i>Sterna hirundo</i> - A193, b	Breeding
21	Chichester and Langstone Harbours	Curlew, <i>Numenius arquata</i> - A160, nb	Non-breeding
21	Chichester and Langstone Harbours	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
21	Chichester and Langstone Harbours	Dunlin, <i>Calidris alpina alpina</i> - A672, nb	Non-breeding
21	Chichester and Langstone Harbours	Grey plover, <i>Pluvialis squatarola</i> - A141, nb	Non-breeding
21	Chichester and Langstone Harbours	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
21	Chichester and Langstone Harbours	Pintail, <i>Anas acuta</i> - A054, nb	Non-breeding
21	Chichester and Langstone Harbours	Red-breasted merganser, <i>Mergus serrator</i> - A069, nb	Non-breeding
21	Chichester and Langstone Harbours	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding

Number	SPA	Notified features	Breeding or overwintering population
21	Chichester and Langstone Harbours	Ringed plover, <i>Charadrius hiaticula</i> - A137, nb	Non-breeding
21	Chichester and Langstone Harbours	Sanderling, <i>Calidris alba</i> - A144, nb	Non-breeding
21	Chichester and Langstone Harbours	Sandwich tern, <i>Thalasseus sandvicensis</i> - A191, b	Breeding
21	Chichester and Langstone Harbours	Shelduck, <i>Tadorna tadorna</i> - A048, nb	Non-breeding
21	Chichester and Langstone Harbours	Shoveler, <i>Spatula clypeata</i> - A056, nb	Non-breeding
21	Chichester and Langstone Harbours	Teal, <i>Anas crecca</i> - A704, nb	Non-breeding
21	Chichester and Langstone Harbours	Turnstone, <i>Arenaria interpres</i> - A169, nb	Non-breeding
21	Chichester and Langstone Harbours	Waterbird assemblage	Non-breeding
21	Chichester and Langstone Harbours	Wigeon, <i>Mareca penelope</i> - A050, nb	Non-breeding
22	Dorset Heathlands	Dartford warbler, <i>Sylvia undata</i> - A302, b	Breeding
22	Dorset Heathlands	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
22	Dorset Heathlands	Merlin, <i>Falco columbarius</i> - A098, nb	Non-breeding
22	Dorset Heathlands	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
22	Dorset Heathlands	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
23	Foulness (Mid-Essex Coast Phase 5)	Avocet, <i>Recurvirostra avosetta</i> - A132-A, b	Breeding
23	Foulness (Mid-Essex Coast Phase 5)	Bar-tailed godwit, <i>Limosa lapponica</i> - A157, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Common tern, <i>Sterna hirundo</i> - A193, b	Breeding
23	Foulness (Mid-Essex Coast Phase 5)	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Grey plover, <i>Pluvialis squatarola</i> - A141, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Knot, <i>Calidris canutus</i> - A143, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
23	Foulness (Mid-Essex Coast Phase 5)	Oystercatcher, <i>Haematopus ostralegus</i> - A130, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding
23	Foulness (Mid-Essex Coast Phase 5)	Ringed plover, <i>Charadrius hiaticula</i> - A137, b	Breeding
23	Foulness (Mid-Essex Coast Phase 5)	Sandwich tern, <i>Thalasseus sandvicensis</i> - A191, b	Breeding

Number	SPA	Notified features	Breeding or overwintering population
23	Foulness (Mid-Essex Coast Phase 5)	Waterbird assemblage	Non-breeding
24	Lower Derwent Valley	Bewick's swan, <i>Cygnus columbianus bewickii</i> - A037, nb	Non-breeding
24	Lower Derwent Valley	Golden plover, <i>Pluvialis apricaria</i> - A140, nb	Non-breeding
24	Lower Derwent Valley	Ruff, <i>Calidris pugnax</i> - A151, nb	Non-breeding
24	Lower Derwent Valley	Shoveler, <i>Spatula clypeata</i> - A056, b	Breeding
24	Lower Derwent Valley	Teal, <i>Anas crecca</i> - A704, nb	Non-breeding
24	Lower Derwent Valley	Waterbird assemblage	Non-breeding
24	Lower Derwent Valley	Wigeon, <i>Mareca penelope</i> - A050, nb	Non-breeding
25	Minsmere-Walberswick	Avocet, <i>Recurvirostra avosetta</i> - A132-A, b	Breeding
25	Minsmere-Walberswick	Bittern, <i>Botaurus stellaris</i> - A021, b	Breeding
25	Minsmere-Walberswick	Gadwall, <i>Mareca strepera</i> - A051, b	Breeding
25	Minsmere-Walberswick	Gadwall, <i>Mareca strepera</i> - A051, nb	Non-breeding
25	Minsmere-Walberswick	Greater white-fronted goose, <i>Anser albifrons albifrons</i> - A394, nb	Non-breeding
25	Minsmere-Walberswick	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
25	Minsmere-Walberswick	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
25	Minsmere-Walberswick	Marsh Harrier, <i>Circus aeruginosus</i> - A081, b	Breeding
25	Minsmere-Walberswick	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
25	Minsmere-Walberswick	Shoveler, <i>Spatula clypeata</i> - A056, b	Breeding
25	Minsmere-Walberswick	Shoveler, <i>Spatula clypeata</i> - A056, nb	Non-breeding
25	Minsmere-Walberswick	Teal, <i>Anas crecca</i> - A704, b	Breeding
26	New Forest	Dartford warbler, <i>Sylvia undata</i> - A302, b	Breeding
26	New Forest	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
26	New Forest	Hobby, <i>Falco subbuteo</i> - A099, b	Breeding
26	New Forest	Honey buzzard, <i>Pernis apivorus</i> - A072, b	Breeding
26	New Forest	Nightjar, <i>Caprimulgus europaeus</i> - A224, b	Breeding
26	New Forest	Wood warbler, <i>Phylloscopus sibilatrix</i> - A314, b	Breeding
26	New Forest	Woodlark, <i>Lullula arborea</i> - A246, b	Breeding
27	North Norfolk Coast	Avocet, <i>Recurvirostra avosetta</i> - A132-A, b	Breeding
27	North Norfolk Coast	Bittern, <i>Botaurus stellaris</i> - A021, b	Breeding
27	North Norfolk Coast	Common tern, <i>Sterna hirundo</i> - A193, b	Breeding
27	North Norfolk Coast	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding

Number	SPA	Notified features	Breeding or overwintering population
27	North Norfolk Coast	Knot, <i>Calidris canutus</i> - A143, nb	Non-breeding
27	North Norfolk Coast	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
27	North Norfolk Coast	Marsh Harrier, <i>Circus aeruginosus</i> - A081, b	Breeding
28	Salisbury Plain	Hen harrier, <i>Circus cyaneus</i> - A082, nb	Non-breeding
28	Salisbury Plain	Hobby, <i>Falco subbuteo</i> - A099, b	Breeding
28	Salisbury Plain	Quail, <i>Coturnix coturnix</i> - A113, b	Breeding
28	Salisbury Plain	Stone-curlew, <i>Burhinus oedicephalus</i> - A133, b	Breeding
29	Solent and Southampton Water	Black-tailed godwit, <i>Limosa limosa islandica</i> - A616, nb	Non-breeding
29	Solent and Southampton Water	Common tern, <i>Sterna hirundo</i> - A193, b	Breeding
29	Solent and Southampton Water	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
29	Solent and Southampton Water	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
29	Solent and Southampton Water	Mediterranean gull, <i>Ichthyophaga melanocephala</i> - A176, b	Breeding
29	Solent and Southampton Water	Ringed plover, <i>Charadrius hiaticula</i> - A137, nb	Non-breeding
29	Solent and Southampton Water	Roseate tern, <i>Sterna dougallii</i> - A192, b	Breeding
29	Solent and Southampton Water	Sandwich tern, <i>Thalasseus sandvicensis</i> - A191, b	Breeding
29	Solent and Southampton Water	Teal, <i>Anas crecca</i> - A704, nb	Non-breeding
29	Solent and Southampton Water	Waterbird assemblage	Non-breeding
30	Stour and Orwell Estuaries	Avocet, <i>Recurvirostra avosetta</i> - A132-A, b	Breeding
30	Stour and Orwell Estuaries	Black-tailed godwit, <i>Limosa limosa islandica</i> - A616, nb	Non-breeding
30	Stour and Orwell Estuaries	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
30	Stour and Orwell Estuaries	Dunlin, <i>Calidris alpina alpina</i> - A672, nb	Non-breeding
30	Stour and Orwell Estuaries	Grey plover, <i>Pluvialis squatarola</i> - A141, nb	Non-breeding
30	Stour and Orwell Estuaries	Knot, <i>Calidris canutus</i> - A143, nb	Non-breeding
30	Stour and Orwell Estuaries	Pintail, <i>Anas acuta</i> - A054, nb	Non-breeding
30	Stour and Orwell Estuaries	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding
30	Stour and Orwell Estuaries	Waterbird assemblage	Non-breeding

Number	SPA	Notified features	Breeding or overwintering population
31	The Wash	Bar-tailed godwit, <i>Limosa lapponica</i> - A157, nb	Non-breeding
31	The Wash	Bewick's swan, <i>Cygnus columbianus bewickii</i> - A037, nb	Non-breeding
31	The Wash	Black-tailed godwit, <i>Limosa limosa islandica</i> - A616, nb	Non-breeding
31	The Wash	Common scoter, <i>Melanitta nigra</i> - A065, nb	Non-breeding
31	The Wash	Common tern, <i>Sterna hirundo</i> - A193, b	Breeding
31	The Wash	Curlew, <i>Numenius arquata</i> - A160, nb	Non-breeding
31	The Wash	Dark-bellied brent goose, <i>Branta bernicla bernicla</i> - A675, nb	Non-breeding
31	The Wash	Dunlin, <i>Calidris alpina alpina</i> - A672, nb	Non-breeding
31	The Wash	Gadwall, <i>Mareca strepera</i> - A051, nb	Non-breeding
31	The Wash	Goldeneye, <i>Bucephala clangula</i> - A067, nb	Non-breeding
31	The Wash	Grey plover, <i>Pluvialis squatarola</i> - A141, nb	Non-breeding
31	The Wash	Knot, <i>Calidris canutus</i> - A143, nb	Non-breeding
31	The Wash	Little tern, <i>Sterna albifrons</i> - A195, b	Breeding
31	The Wash	Oystercatcher, <i>Haematopus ostralegus</i> - A130, nb	Non-breeding
31	The Wash	Pink-footed goose, <i>Anser brachyrhynchus</i> - A040, nb	Non-breeding
31	The Wash	Pintail, <i>Anas acuta</i> - A054, nb	Non-breeding
31	The Wash	Redshank, <i>Tringa totanus</i> - A162, nb	Non-breeding
31	The Wash	Sanderling, <i>Calidris alba</i> - A144, nb	Non-breeding
31	The Wash	Shelduck, <i>Tadorna tadorna</i> - A048, nb	Non-breeding
31	The Wash	Turnstone, <i>Arenaria interpres</i> - A169, nb	Non-breeding
31	The Wash	Waterbird assemblage	Non-breeding
31	The Wash	Wigeon, <i>Mareca penelope</i> - A050, nb	Non-breeding

Annex C: Mandatory testing and checks, biosecurity measures and other conditions

Condition 4: Vet checks and mandatory testing	Purpose of the condition	Relevant transmission pathway
Before releasing gamebirds, you must arrange for an experienced poultry or gamebird vet to carry out the following inspection and sampling for signs of notifiable disease. This applies to single or trickle releases.	Detect HPAIV in gamebirds (both symptomatic and asymptomatic) prior to release and	Reduces the risk of releasing gamebirds with HPAIV onto the SPA by identifying infected gamebirds prior to

Condition 4: Vet checks and mandatory testing	Purpose of the condition	Relevant transmission pathway
<p>Inspecting gamebirds: Within the 24 hours before release, you must make sure the vet inspects all:</p> <ul style="list-style-type: none"> – gamebirds to be released – other kept birds (such as poultry) held in the same release pen or release area <p>You must only release gamebirds if the vet confirms there is no evidence of notifiable disease in any of the gamebirds you plan to release, or the other kept birds. You must get a written statement from the vet confirming this.</p> <p>You must keep this statement and:</p> <ul style="list-style-type: none"> – produce it for inspection when requested by any wildlife inspector [footnote 10] – send a copy to glenquiries@defra.gov.uk within one week of releasing gamebirds <p>Testing red-legged partridges: If red-legged partridges have not mixed with common pheasants or other indicator species for bird flu, you must make sure the vet takes samples to test for bird flu (highly pathogenic avian influenza (HPAI)) within 48 hours of the intended release. Indicator species for bird flu include chickens and turkeys).</p> <p>You must make sure the vet samples at least 60 of the red-legged partridges you plan to release, or all of the red-legged partridges if you plan to release fewer than 60 red-legged partridges.</p> <p>You must arrange for the vet to send the samples to the APHA National Reference Lab.</p> <p>You must not release the red-legged partridges until the vet receives the test results confirming negative results for HPAI.</p> <p>You must keep the test results and:</p> <ul style="list-style-type: none"> – produce them for inspection when requested by any wildlife inspector – send a copy to glenquiries@defra.gov.uk within one week of releasing gamebirds 	<p>prevent gamebirds infected with HPAIV from being released onto the SPA or into the SPA buffer zone.</p>	<p>release. Prevents direct and indirect transmission to wild birds by preventing release of infected gamebirds on/in the buffer of the SPA.</p>

Condition 5: Biosecurity measures	Purpose of the measure	Relevant transmission pathway
<p>Keeping footwear and clothing clean.</p> <p>If birds are in the release pen or release area, you must make sure footwear and clothing is clean when you enter. In this condition, 'release area' refers to the area you release red-legged partridges into if you do not use a release pen.</p> <p>For footwear, you must either:</p> <ul style="list-style-type: none"> – use a disinfectant foot dip before you enter and when you step out of the release pen or release area – use a Defra-approved disinfectant at the dilution rate for the Diseases of Poultry Order – use dedicated footwear inside the release pen or release area – leave your general footwear outside 	<p>Prevent transmission of HPAIV between release pens/areas and other pens/areas and the surrounding environment via transmission of virus on contaminated items (e.g., clothing and footwear), which can become contaminated with and deposit contaminated material (e.g., soil, faecal matter), thereby moving the virus between locations. Routine cleaning of footwear and clothing will reduce the risk of transferring contaminated material between locations.</p>	<p>Reduces the risk of indirect HPAIV transmission between gamebirds and wild birds via environmental contamination of release pens/areas and other pens/areas/the surrounding environment with HPAIV.</p>
<p>Cleaning and disinfecting vehicles and equipment.</p> <p>You must clean and disinfect any vehicles that come onto the site for shooting business purposes and will enter a release pen or release area. You must do so:</p> <ul style="list-style-type: none"> – every time they enter the site where a shoot will take place – weekly if they are kept on the site <p>You must also clean and disinfect equipment before use in a release pen or release area.</p> <p>When disinfecting vehicles and equipment, you must use a Defra-approved disinfectant.</p>	<p>Prevent transmission of HPAIV between release pens/areas and other pens/areas and the surrounding environment via transmission of virus on contaminated items (e.g., vehicles and equipment), which can become contaminated with and deposit contaminated material (e.g., soil, faecal matter), thereby moving the virus between locations. Routine cleaning of vehicles and equipment will reduce the risk of transferring contaminated material between locations.</p>	<p>Reduces the risk of indirect HPAIV transmission between gamebirds and wild birds via environmental contamination of release pens/areas and other pens/areas/the surrounding environment with HPAIV.</p>

Condition 5: Biosecurity measures	Purpose of the measure	Relevant transmission pathway
<p>Maintaining feeding and watering stations.</p> <p>You must:</p> <ul style="list-style-type: none"> – have at least one feeding station per 60 released gamebirds, to reduce gamebird density per station – remove any spilled feed daily, as this could attract wild birds – only scatter feed when necessary and not within 50 metres of a water body regularly visited by wildfowl <p>You must also do one of the following:</p> <ul style="list-style-type: none"> – cover feeding and watering stations to avoid contamination from wild bird droppings – clean feeding and watering stations daily to remove droppings and feathers – move feeding and watering stations at least once a week to avoid the build-up of droppings and feathers 	<p>Routine cleaning, movement, and covering of stations will reduce the build-up of potentially HPAIV-contaminated material on substrate surrounding stations, will remove potentially contaminated faecal matter from station surfaces, and prevent attraction of wild birds to stations/scattered feed and consequently areas in which gamebirds are being kept/fed, where they could contaminate stations, come into contact with contaminated material, or come into contact with gamebirds.</p>	<p>Reduces the risk of indirect HPAIV transmission between gamebirds and wild birds via environmental contamination of feeding/watering stations, and the ground surrounding stations/scattered feed with HPAIV.</p> <p>Reduces the risk of direct transmission between gamebirds and wild birds visiting the same station/in the same area.</p>
<p>Checking for signs of bird flu.</p> <p>You or anyone acting on your behalf must check gamebirds on a daily basis for signs of bird flu.</p> <p>You or anyone acting on your behalf must consider the welfare of the bird and humanely cull any gamebirds showing signs of bird flu where necessary.</p> <p>Read guidance on bird flu rules if you keep gamebirds in the 'Advice on how to comply with the conditions of this licence' section.</p> <p>Read the 'Code of Practice for the Welfare of Gamebirds Reared for Sporting Purposes' under point 4 of 'information and advice specific to this licence'.</p>	<p>Removal of potentially infected gamebirds via culling reduces likelihood/frequency of contact between sick gamebirds, other gamebirds, and wild birds. This also reduces the risk of environmental contamination by potentially infected gamebirds and/or via potentially HPAIV-infected gamebird carcasses should a gamebird die in the pen/surrounding area and go undetected. Removal of potentially infected gamebirds also prevents scavenging by other gamebirds and wild birds on potentially HPAIV-infected gamebird carcasses should an infected bird then die.</p>	<p>Reduces the risk of HPAIV transmission from potentially HPAIV-infected gamebirds to other gamebirds and wild birds indirectly via environmental contamination and directly via contact with other gamebirds and wild birds.</p>

Condition 5: Biosecurity measures	Purpose of the measure	Relevant transmission pathway
<p>Disposing of carcasses.</p> <p>You must collect common pheasant, red-legged partridge and other wild bird carcasses in and around your release pens, release areas and any areas gamebirds are encouraged into. You must dispose of bird carcasses safely. Read guidance on disposing of carcasses in the 'Advice on how to comply with the conditions of this licence' section.</p>	<p>Removal of potentially infected gamebird carcasses from the environment reduces likelihood of contact with and prevents scavenging by gamebirds and wild birds on infectious carcasses. Removal also reduces the risk of environmental contamination by potentially HPAIV-infected carcasses.</p>	<p>Reduces the risk of direct transmission between potentially infective carcasses and gamebirds and wild birds by preventing consumption of highly infective organs before any significant environmental degradation can occur. This is particularly relevant in months (i.e., winter) when the propensity for many species to scavenge during lean/stressful periods suggests significant likelihoods of interaction with infective prey. Also reduced the risk of decomposing infected carcasses contaminating the environment and enabling indirect transmission to gamebirds and wild birds.</p>

Advice re 'catching up' of gamebirds	Purpose of the advice	Relevant transmission pathway
<p>Defra requests you 'catch up' any gamebirds released under this licence that are still in the wild by 1 February 2025. This helps to make sure they cannot pass bird flu to SPA bird species once the shooting season has closed.</p>	<p>Encourage those acting under the licence to 'catch up' (i.e., remove) any gamebirds still on site at the end of the shooting season to make sure that as few birds as possible remain in the wild at the end of the shooting season and into the following breeding season.</p>	<p>Reduces the risk of direct and/or indirect transmission (via direct contact, environmental contamination, and bridging species) to wild birds by reducing the likelihood that a substantial number of gamebirds remain on site after the shooting season has ended.</p>

Advice re numbers of birds to be released	Purpose of the advice	Relevant transmission pathway
<p>This licence specifies a maximum density of gamebirds that you can release. You should also consider the total number of gamebirds you will release. This should not be excessive compared to the number of birds expected to be shot throughout the shooting season. This will help you make sure that as few birds as possible remain in the wild at the end of the shooting season.</p>	<p>Encourage those acting under the general licence not to release excessive numbers of birds in relation to the numbers expected to be shot to reduce the risk of substantial numbers of gamebirds surviving post-shooting season and remaining on site over winter and into the following breeding season.</p>	<p>Reduces the risk of direct and/or indirect transmission (via direct contact, environmental contamination, and bridging species) to wild birds by reducing the likelihood that a substantial number of gamebirds remain on site after the shooting season has ended.</p>

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