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for Environment
Food & Rural Affairs



Llywodraeth Cymru
Welsh Government

Mitigation Strategy for Avian Influenza in Wild Birds in England and Wales

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31 August 2022	1.0		Initial publication
27 March 2023	2.0	All sections	General typographical and accessibility improvements, key updates include reflecting launch of the online reporting tool for dead wild birds, outcome of risk assessments on game bird release, waterfowl and game shooting, and carcass removal and establishment of the JNCC chaired Defra-Welsh Government Avian Influenza Wild Bird Recovery Advisory Group and linked stakeholder groups, Agreement of the Conservation of African-Eurasian Migratory Waterbirds commitments, and advice on feeding wild birds.

Abbreviations

ABP – Animal by Products
ACDP – Advisory Committee on Dangerous Pathogens
ADPG – Animal Disease Policy Group
AEWA – Agreement of the Conservation of African-Eurasian Migratory Waterbirds
AIPZ – Avian Influenza Prevention Zone
APHA – Animal and Plant Health Agency
APHW – Animal and Plant Health and Welfare
BASC – British Association for Shooting and Conservation
BBS – Breeding Bird Survey
BBSRC – Biotechnology and Biological Sciences Research Council
BoCC5 – Birds of Conservation Concern 5
BTO – British Trust for Ornithology
BVA – British Veterinary Association
CCS – Civil Contingencies Secretariat
Cefas – Centre for Environment, Fisheries and Aquaculture Science
CMO – Chief Medical Officer
CMS – Convention on Migratory Species
COBR – Civil Contingencies Committee
COSHH – Control of Substances Hazardous to Health
CRoW – Countryside and Rights of Way
CSA – Chief Scientific Advisor
CSIP – Cetacean Stranding Investigation Programme
CVO – Chief Veterinary Officer
Defra – Department for Environment, Food and Rural Affairs
DIST – Department for Science, Innovation and Technology
DoWS – Diseases of Wildlife Scheme
EDPRT – Exotic Disease Policy Response Team
EIP – Environmental Improvement Plan
ESCaRP – English Seabird Conservation and Recovery Pathway
EU – European Union
FAO – Food and Agriculture Organisation
FFP – Filtering Face Piece
GBWHP – Great Britain Wildlife Health Partnership
GSMP – Goose and Swan Monitoring Programme
GWCT – Game and Wildlife Conservation Trust
GWH – Garden Wildlife Health
H – Haemagglutinin
HPAI – Highly Pathogenic Avian Influenza
HPAIV – Highly Pathogenic Avian Influenza Virus
HSE – Health and Safety Executive
IoZ – Institute of Zoology
IRL – International Reference Laboratory
ISO – International Organization for Standardization
JNCC – Joint Nature Conservation Committee

LAAHF – Local Authorities Animal Health Function
LPAI – Low Pathogenic Avian Influenza
LPAIV – Low Pathogenic Avian Influenza Virus
MOP – Meeting of Parties
MPA – Marine Protected Area
N – Neuraminidase
NE – Natural England
NEG – National Experts Group
NGO – Non Governmental Organisation
NHS – National Health Service
NRL – National Reference Laboratory
NRW – Natural Resources Wales
OEP – Ornithological Expert Panel
OSPAR - Convention for the Protection of the Marine Environment of the North-East Atlantic
PHW – Public Health Wales
PPE – Personal Protective Equipment
RPE – Respiratory Protective Equipment
RSPB – Royal Society for the Protection of Birds
RSPCA – Royal Society for the Prevention of Cruelty to Animals
SAC – Science Advisory Committee
SAC-ED – Science Advisory Council Exotic and Emerging Animal Disease Sub Group
SAPO – Specified Animal Pathogens Order
SMP – Seabird Monitoring Programme
SoS – Secretary of State
SPA – Special Protected Areas
SRUC – Scotland's Rural College
UK – United Kingdom
UK MANCP – United Kingdom Multi-Annual National Control Plan
UKAS – United Kingdom Accreditation Service
UKHSA – United Kingdom Health Security Agency
UKRI – United Kingdom Research and Innovation
WAHIS – World Animal Health Information System
WBCA – Wild Bird Control Area
WBMA – Wild Bird Monitoring Area
WeBS – Wetland Bird Survey
WIIS – Wildlife Incident Investigation Scheme
WinGS – Winter Gull Roost Survey
WOAH – World Organisation for Animal Health
WWT – Wildfowl & Wetlands Trust
ZSL – Zoological Society of London

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1 Introduction

- 1.1 This document sets out the policies and approach Department for Environment, Food and Rural Affairs (Defra) and Welsh Government, and their delivery agencies the Animal and Plant Health Agency (APHA), Natural England (NE) and Natural Resources Wales (NRW) take to avian influenza in wild birds in England and Wales, within the remit of national law. In addition, the document sets out guidance to the general public and non-governmental organisations (NGOs) on issues which may impact them in relation to avian influenza in wild birds.
- 1.2 Animal health including disease control, and wildlife conservation and management are devolved matters, and it is for the devolved administrations to assess their disease risks and impacts and respond accordingly. However, each of the administrations seek a consistent and coordinated response to disease control across Great Britain where possible.
- 1.3 While this document is applicable to England and Wales only, it aims to support the GB-wide approach to avian influenza control set out in the [Notifiable Avian Disease Control Strategy for Great Britain](#).
- 1.4 The contents of this document were prepared in consultation with the United Kingdom Health Security Agency (UKHSA), Public Health Wales (PHW), the Joint Nature Conservation Committee (JNCC), veterinary and scientific experts, and sector stakeholders. The document is regularly updated to reflect the latest policies and approaches taken to understand and mitigate the impact of avian influenza in wild birds in England and Wales.
- 1.5 This document is structured to set out:
 - the background to the disease and the susceptible population in Great Britain.
 - the considerations assessed for government intervention on the issue.
 - the objective of Defra and Welsh Government and their delivery agencies (APHA, NE and NRW) in assessing and responding to avian influenza in wild birds.
 - the role of APHA and the avian influenza National Reference Laboratory (NRL) in surveillance for avian influenza in wild birds.
 - the role of NE and NRW in collaboration with the JNCC in monitoring wild bird populations.
 - the role of APHA, NE and NRW in the provision of operational guidance for sites and licensing for controlled activities.

- 1.6 Avian influenza is a [notifiable animal disease](#) in poultry and other captive birds (not wild birds). Anyone in possession of any bird or bird carcass (excluding a wild bird or wild bird carcass) which they suspect may be infected with avian influenza, or a mammal or mammal carcass which they suspect may be infected with influenza virus of avian origin must immediately notify the APHA. By calling in England the Defra Rural Services Helpline on 03000 200 301. In Wales, contact 0300 303 8268. In Scotland, by contacting the [local Field Services Office](#). Failure to do so is an offence.
- 1.7 Avian influenza is not a notifiable disease in wild birds. However, in Great Britain, members of the public should use the [online reporting system](#) or call the Defra helpline (03459 33 55 77) if they find dead wild birds, see section 16 for further information.

2 The pathogen and disease

- 2.1 Avian influenza ('bird flu') refers to the disease in birds caused by infection with influenza A viruses. Wild waterbirds of the orders Anseriformes (for example ducks, geese, and swans) and Charadriiformes (for example gulls, terns, and shorebirds) are considered the natural reservoir of avian influenza viruses, and their migratory patterns and interactions with poultry and other captive birds form the backbone of most established avian influenza transmission networks worldwide.
- 2.2 Avian influenza viruses are single-stranded, segmented, negative-sense RNA ((-)ssRNA) viruses and are placed in the family Orthomyxoviridae. At present the Orthomyxoviridae family consists of five genera: Influenzavirus A, Influenzavirus B, Influenzavirus C, Thogotovirus and Isavirus. Only viruses of the Influenzavirus A genus are known to infect birds and those isolated from birds are termed avian influenza viruses. However, while avian influenzas are predominantly considered a pathogen of birds, the virus can infect other mammals including humans and hence is zoonotic. The ease at which it can infect mammals, and whether it can spread from mammal to mammal varies significantly between strains.
- 2.3 Influenza A viruses are categorised into subtypes according to the properties of their surface proteins - haemagglutinin (H) and neuraminidase (N). There are 16 different H proteins and 9 different N proteins (H1 through H16 and N1 through N9, respectively) that are of relevance to infection in birds. Due to the segmented nature of the viral RNA of influenza viruses and the potential for genetic reassortment in mixed infections any combination of these is possible. Alongside this antigenic diversity these viruses differ in their clinical outcome in different species.

- 2.4 Importantly, the H5 and H7 subtypes are considered the most important from an animal health perspective and can be defined as either low pathogenicity avian influenza virus (LPAIV), with generally minimal impact upon the infected birds, or high pathogenicity avian influenza virus (HPAIV), where the outcome of infection can vary in different wild bird species but are generally characterised by very high mortality in Galliformes, mortality rates in other bird taxa may vary. This distinction is a result of genetic factors that can evolve from a LPAIV type to a HPAIV form following infection of different species.
- 2.5 Influenza A subtypes can also be further broken down into different genetic 'clades' and 'sub-clades', with which individual strains are associated based on their genetic sequence. Genetic strain nomenclature for avian influenza viruses is based on viral type (for example influenza A), host of origin (if other than human), geographic origin, strain reference number, year of isolation, and H and N type.

3 Routes of incursion and spread

- 3.1 Avian influenza can spread by movement of infected birds, from bird-to-bird by contact with contaminated body fluids and faeces, either directly or through contaminated objects and surfaces, or by ingestion of infectious material.
- 3.2 An avian influenza outbreak can occur at any point in the year. However, HPAIV is not considered endemic in wild birds in the United Kingdom (UK), rather the UK typically faces a seasonal increase in the risk of an avian influenza incursion associated with the winter migration patterns of wild birds to the UK.
- 3.3 In late autumn or early winter two migration pathways, defined by the major movements of wild waterbirds, have the potential to carry HPAIV infected wild birds to the UK:
- The first is the Black Sea Mediterranean flyway one of three Palaearctic-African flyways connecting Europe to Africa, which is also linked to avian influenza in the Middle East (Israel) as birds move from Europe to Africa at this time of year; European countries along this route would also include those in Central and Southern Europe.
 - The second is the East Atlantic flyway which includes the North European countries, particularly Scandinavia, Germany, Denmark, Poland and Great Britain, in addition to areas of Greenland, Canada and North America. This flyway also offers onward connectivity to the Western Mediterranean and West Africa as far south as South Africa. In addition to via Greenland onward connectivity to the Atlantic Americas flyway (the major north-south flyway for migratory birds linking North and South America and the Caribbean).
- 3.4 There are no clear boundaries between these migration routes and birds will mix between them and multiple species can be found at the same sites.

- 3.5 Infected incoming migratory wild birds can then subsequently infect both other recently arrived migratory wild birds and resident wild bird species resulting in onward local transmission or environmental contamination, for example, wild bird faecal contamination. Hence, why the risk of avian influenza is not solely connected to the presence of infected migratory wild birds.
- 3.6 In Great Britain, the risk of avian influenza incursion during summer typically decreases as environmental conditions (warm, dry, high sunlight exposure) can reduce virus survival in the environment. However, whether a measurable difference in the rate of findings of avian influenza in wild birds is observed is dependent on the background level of transmission of avian influenza, together with the pathogenicity, infectivity and duration of immunity induced by the virus strains circulating at the time.
- 3.7 Recent years have seen unprecedented outbreaks in both kept and wild birds in the UK and Europe. With avian influenza infection (HPAI H5N1 (clade 2.3.4.4b)) seen in breeding seabirds, summer migrants and resident wild birds together with confirmed cases in poultry and other captive birds throughout the summer for the first time in the UK in 2022.
- 3.8 The risk of avian influenza being introduced into domestic poultry or other captive birds will depend on the prevalence and pattern of virus shedding in wild birds, the level of biosecurity in place on and between poultry holdings or other captive bird premises and other factors.
- 3.9 Detailed epidemiological assessments are made by APHA at each premises where notifiable avian influenza is confirmed in poultry or other captive bird to identify, as far as possible, the likely source of infection, establish how long the disease may have been present on the infected premises and potential routes of spread.
- 3.10 At the time of publication in the UK available evidence indicates that direct or indirect contact with infected wild birds is the most likely source of infection on almost all of the premises where avian influenza has been confirmed in poultry or other captive birds. There is a clear correlation between levels of biosecurity on premises prior to confirmation of avian influenza and the outbreaks which have occurred.
- 3.11 Whilst spill-back from poultry or other captive birds on infected premises to wild birds is possible, swift and humane culling of poultry and other captive birds on infected premises coupled with good biosecurity are used to prevent the amplification of avian influenza and subsequent environmental contamination and to reduce the risk of disease spread from infected premises as set out in the [Notifiable Avian Disease Control Strategy for Great Britain](#).
- 3.12 Reports on the [epidemiological investigations](#) at infected premises where notifiable avian influenza has been confirmed in poultry or other captive birds for past outbreaks have been published on gov.uk. Due to the multi-year nature of the HPAI H5N1 outbreak the report of the epidemiological investigations will be published on gov.uk as multiple documents. With the initial report covering the first year of the outbreak (October 2021 to September 2022).

4 Reasons for government intervention

- 4.1 In England the 2009 [England Wildlife Health Strategy](#) provides a policy framework within which Defra is able to develop and make policy decisions in relation to wildlife disease management. It states that government has a responsibility to intervene in wildlife disease issues when:
- the impact of a disease is significant enough to cause a decline in the population viability of a species officially recognised as of conservation concern, or
 - in a situation where the impact is so severe that a species could become threatened.
- 4.2 In Wales the 2014 [Animal Health and Welfare Framework](#) provides the basis within which Welsh Government is able to develop and make policy decisions in relation to wildlife disease management. Its scope includes where 'wildlife is also covered where our actions affect their health and welfare or where there is a risk of wildlife transmitting disease to other animals or humans'.
- 4.3 Defra and Welsh Government's approach to avian influenza in wild birds considers the latest scientific and ornithological evidence and veterinary advice, when considering the current and potential impact of avian influenza in wild birds, against the above criteria and whether viable mitigation measures are available to limit any impacts in wild birds in line with international best practice.

5 Strategic fit with government policy

- 5.1 This approach is consistent with broad animal health and biodiversity policies including:
- Government's [Notifiable avian disease control strategy for Great Britain](#) and overarching exotic disease contingency plans ([Defra's Contingency Plan for Exotic Diseases of Animals](#), [Welsh Government's Exotic Animal Diseases Contingency Plan](#) and the [United Kingdom contingency plan for exotic notifiable diseases of animals](#)).
 - the [Animal Health and Welfare Strategy for Great Britain](#) principle and the Welsh Government [Animal Health and Welfare Framework](#) commitment that 'prevention is better than cure'.
 - ongoing obligations for the welfare and protection of wild birds including under the [Wildlife and Countryside Act 1981](#).
 - sharing responsibility and cost, requiring close working between government and stakeholders in developing and delivering disease controls.
 - compliance with international obligations to trading partners and the [World Organisation for Animal Health \(WOAH\)](#).
 - mitigating the risk of spread of disease to third countries.

- Wildlife management policies and commitments on the protection of biodiversity including in England the [25 Year Environment Plan](#), [Environmental Improvement Plan \(EIP\) 2023](#) and the [Environment Act 2021](#), and in Wales the [Environment \(Wales\) Act 2016](#) and [Wellbeing of Future Generations \(Wales\) Act 2015](#). In conjunction in England and Wales with the [Countryside and Rights of Way Act \(CRoW\) Act 2000](#), the [Conservation of Habitats and Species Regulations 2017](#) and the [Marine Strategy Regulations 2010](#). In addition to international obligations in relation to the [Convention on Biological Diversity \(CBD\)](#), the [Bern Convention](#), the Convention on Migratory Species (CMS), the [African Eurasian Waterbird Agreement \(AEWA\)](#), the [Convention for the Protection of the Marine Environment of the North-East Atlantic \(OSPAR\)](#).

6 Roles of government

- 6.1 Defra and Welsh Government are responsible for responding to outbreaks of exotic animal disease in England and Wales respectively. In both England and Wales APHA are the primary delivery agents, supported by NE and NRW in England and Wales respectively with regard to environmental and wildlife impacts.
- 6.2 In England the Defra Secretary of State (SoS) and ministers have overall responsibility for and oversight of the outbreak response. In Wales Welsh Ministers are responsible for decision making related to outbreak response, and biodiversity. The relevant Defra and Welsh Government minister will be involved in strategic decision making, working closely with the UK Chief Veterinary Officer (CVO) and CVO Wales, respectively and senior officials.
- 6.3 The UKHSA and PHW are the lead bodies for the human public health response in England and Wales respectively, working with NHS England, NHS Wales and local authority partners who facilitate the response. Regional UKHSA and PHW Health Protection Teams work closely with Defra and Welsh Government respectively to monitor the situation and providing health advice to persons at infected premises and those who have been in close contact with infected wildlife. Appropriate action is taken by UKHSA in England to protect public health in line with the [national guidance for managing the human health risk of avian influenza in poultry and wild birds](#) and by PHW in Wales in line with Public Health Wales Avian Influenza Standard Operating Procedure.
- 6.4 The Animal Disease Policy Group (ADPG) provides disease control policy advice and strategic recommendations at UK level which form the basis for advice to Defra ministers, Welsh Government Ministers, the Civil Contingencies Committee (COBR) and other strategic decision makers. It is the forum where the disease control policy and strategic recommendations are presented, reviewed, discussed, challenged and agreed by officials. Noting however, that decisions regarding species recovery initiatives outside of those directly linked to disease prevention and control are outside the scope of ADPG.

- 6.5 The ADPG also has an important role in ensuring that policies are consistent (although they may be different) across the four administrations within the UK. ADPG is chaired by Defra's director for Animal and Plant Health and Welfare (APHW) and Defra's Exotic Disease Policy Response Team (EDPRT) provides the secretariat. The membership of the ADPG includes representatives from Defra policy teams, communications group, Defra legal advisers (animal health and welfare team), UK CVO, Defra Chief Scientific Advisor (CSA) representative, National Experts Group (NEG), CVO's and policy officials from devolved governments, Civil Contingencies Secretariat (CCS) and APHA. Membership may also include food safety and public health representatives (who provide specific advice on zoonotic diseases).
- 6.6 Further details on the ADPG and the overarching command and control structure of the response to outbreaks of exotic disease are outlined in the [Contingency Plan for Exotic Notifiable Diseases of Animals in England](#) and [Welsh Government's Exotic Animal Diseases Contingency Plan](#). Scotland and Northern Ireland also maintain contingency plans. The [UK contingency plan for exotic notifiable diseases of animals](#) explains how the administrations work together in responding to an outbreak at a UK level. Taken together, these plans and the published disease control strategies for specific exotic diseases meet the UK's obligations to our international trading partners and to WOAAH.
- 6.7 In addition, the [Science Advisory Council Exotic and Emerging Animal Disease Sub group \(SAC-ED\)](#) of Defra's [Science Advisory Council \(SAC\)](#) provides advice to Defra on using evidence and analysis to support exotic disease control, reviews the evidence and analysis supporting Defra's disease control and recovery phase policies in the event of an exotic disease outbreak, and offers advice to the devolved administrations.

7 Objectives of disease prevention, mitigation and control measures

- 7.1 Defra and Welsh Government's disease control measures seek to contain the number of animals that need to be culled, either for disease control purposes or to safeguard animal welfare. Our approach aims to reduce adverse impacts on the rural and wider economy, the public, rural communities and the environment (including impact on wildlife), whilst protecting public health and minimising the overall cost of any outbreak.
- 7.2 Defra and Welsh Government's objective in tackling any outbreak of avian influenza in kept birds is to eradicate the disease as quickly as possible from the UK poultry and captive-bird population and regain UK WOAAH disease-free status.

- 7.3 Defra and Welsh Government's approach in kept birds is set out in the [Notifiable Avian Disease Control Strategy for Great Britain](#). In summary in poultry and other captive birds following confirmation of notifiable avian influenza, swift and humane culling of kept birds on infected premises coupled with good biosecurity aims to prevent the amplification of avian influenza and subsequent environmental contamination and to reduce the risk of disease spread from infected premises to other kept birds, wild birds or other animals.
- 7.4 Current policy is in line with international standards of best practice for disease control. It reflects our experience of responding to past outbreaks of exotic animal disease.
- 7.5 In wild birds, Defra and Welsh Government's approach to avian influenza seeks to align with our targets on protecting species abundance and diversity. Managing disease in wild bird populations is one aspect of species conservation and recovery. In relation to avian influenza Defra and Welsh Government aim to monitor the spatial and temporal distribution of avian influenza in the different wild species to inform our understanding and:
- Help government understand what the risk posed to and from poultry and other captive birds from avian influenza virus is and inform the requirements for instigating proactive infection prevention measures in kept birds.
 - Improve our scientific knowledge on what virus strains are currently circulating and how they are evolving, including estimating from infection outcomes what bird species may be more resistant to avian influenza strains.
 - Inform risk mitigation measures in birds to reduce disease burden thereby reducing infection pressure in the environment and subsequent risk of mammalian infection and subsequent viral adaptation that could drive zoonotic potential.
 - Inform risk mitigation targeting human behaviours to reduce the risk of zoonotic transmission occurring from animals to humans.
 - Understand the risk to, and impact on, populations of wild birds of conservation concern, which will inform future species recovery programmes and allow us to take action where possible, in accordance with international best practice and the latest evidence.

8 International disease monitoring

- 8.1 APHA carry out routine surveillance of disease risks both in the UK and around the world to help Government anticipate future threats to animal health. APHA continue to closely monitor the global situation of avian influenza as part of this work.
- 8.2 APHA virologists and epidemiologists continue to collaborate with colleagues in Europe and around the world to closely analyse viruses involved in both outbreaks in poultry and other captive birds and those found in wild birds, with the aim of trying to understand what makes these viruses different and how they might change in the future. This work is facilitated through WOAHP and Food and Agriculture Organization (FAO) international (and the UK's national) reference laboratory for Avian Influenza located at APHA Weybridge.
- 8.3 APHA also contributes relevant information to the [World Animal Health Information System \(WAHIS\)](#) through WOAHP in line with the UK's international commitments as a WOAHP member country. WAHIS acts as an early warning system for the management of alert notices and as an ongoing global monitoring system for avian influenza and other WOAHP listed and new and emerging diseases.
- 8.4 The latest risk and outbreak assessments by APHA are published and available on gov.uk at as part of the [Animal diseases: international and UK monitoring](#) collection.
- 8.5 Further information on APHA's wider work to monitor avian disease threats can also be found in the [Avian: GB disease surveillance and emerging threats reports](#) and the [Wildlife: GB disease surveillance and emerging threats reports](#) on gov.uk.

9 Ornithological Expert Panel

- 9.1 The Ornithological Expert Panel (OEP) is an APHA-chaired expert group established in 2004. Membership is drawn from individuals who bring unique knowledge and expertise of the area. Members are typically associated with, but not limited to, the APHA, the British Trust for Ornithology (BTO), British Association for Shooting and Conservation (BASC), Game and Wildlife Conservation Trust (GWCT), NatureScot, NE, NRW, the Royal Society for the Protection of Birds (RSPB) and Wildfowl & Wetland Trust (WWT). However, members are invited to join the OEP as individuals, and are free to share their personal opinions and expertise, which may not necessarily be those of the organisation they are affiliated to.
- 9.2 The OEP can be called on for the provision of expert advice to support the development of policy.
- 9.3 The OEP is an advisory group, it does not have decision-making powers. Its role is to provide veterinary technical and scientific evidence in response to specific questions on a developing policy. The OEP does not advise on disease control strategy, although the evidence it gives should support a policy team in identifying options.

- 9.4 The OEP does not replace existing sources of expertise available to policy makers either directly or indirectly but is used where it provides the best forum for allowing interaction between experts within and across disciplines to resolve a specific issue or to supplement the existing advice. The OEP is not a stakeholder engagement forum.
- 9.5 The OEP may be set up in either:
- Disease control mode – where advice is needed during an outbreak to answer specific questions about risk management options.
 - Policy support mode – where expertise is required during business as usual to fill a gap in knowledge, (for example, define areas of uncertainty)
- 9.6 The timescale for assembling an OEP once the need is identified is rapid, typically between 24 to 48 hours. The OEP will continue to be called upon in response to any emerging issues regarding avian influenza.

10 Avian Influenza Wild Bird Recovery Advisory Group

- 10.1 Defra and the Welsh Government commissioned JNCC to establish an Avian Influenza Wild Bird Recovery Advisory Group for England and Wales.
- 10.2 The Avian Influenza Wild Bird Recovery Advisory Group, established in September 2022, will collaborate where needed with the NatureScot Avian Influenza Task Force for Scotland and will gather information from conservation, land management and wildlife disease experts from a range of organisations to assess what further conservation and monitoring actions can be implemented with respect to wild birds.
- 10.3 The Avian Influenza Wild Bird Recovery Advisory Group is an advisory group, it does not have decision-making powers, and it is not a stakeholder engagement forum.

11 Defra Group Avian Influenza in Wild Birds Working Group

- 11.1 The Defra Group Avian Influenza in Wild Birds Working Group, established in June 2022, is a government working group bringing together knowledge and expertise from individuals and teams from across Defra and its delivery agencies APHA and NE, together with JNCC who have a policy or implementation responsibility associated with avian influenza in wild birds.
- 11.2 Cross-government working by the group is supported by representatives from UKHSA and the Health and Safety Executive (HSE). Whilst Welsh Government representation on the group supports cross-administration working and the delivery of this shared mitigation strategy for avian influenza in wild birds.

- 11.3 Issues for decision are escalated from the Defra Group Avian Influenza in Wild Birds Working Group to the ADPG (see Section 6.4 for further information) and Defra ministers where relevant.

12 Avian Influenza Outbreak and Biosecurity Communications Stakeholder Group

- 12.1 The Avian Influenza Outbreak and Biosecurity Communications Stakeholder group is a stakeholder engagement forum established in January 2021 and hosted by Defra on behalf of the Great Britain administrations and attended by organisations representing backyard, hobby, commercial and specialist bird keepers and ornithological NGOs.
- 12.2 The group meets regularly during outbreaks with a focus on sharing latest situation updates on the outbreaks of avian influenza in both wild and kept birds together with horizon scanning information from APHA's international disease monitoring programme and information on disease prevention, mitigation and control measures.

13 Welsh Wild Bird Avian Influenza Strategic Response Group

- 13.1 The Welsh Wild Birds Avian Influenza Strategic Response Group is a joint group between Welsh Government, NRW and relevant stakeholder organisations and experts that represent sectors of conservation and animal welfare across Wales.
- 13.2 The group takes a holistic and strategic forward-looking approach to avian influenza in all wild birds, including released game birds in Wales. It provides a platform to discuss and develop a strategic and evidence-based response to mitigating the impacts of avian influenza in wild birds and contribute towards building resilience and recovery of affected populations in Wales.
- 13.3 The scope is limited to Wales and does not include the undertaking of research, though relevant research and evidence will be drawn from the UK and elsewhere. Where evidence gaps are identified and recognising the migratory nature of wild birds and avian influenza, these will actively be shared with groups or organisations which undertake or coordinate research across the UK and wider, including the Avian Influenza Wild Bird Recovery Advisory Group.

14 Clinical signs of avian influenza

- 14.1 The main clinical signs of Highly Pathogenic Avian Influenza (HPAI) in birds (which can include any or a combination of the following) are:
- sudden and rapid increase in the number of birds found dead
 - several birds affected in the same area
 - swollen head
 - closed and excessively watery eyes
 - discoloured or loose watery droppings
 - drooping of the wings or dragging of legs
 - twisting of the head and neck
 - swelling and blue discolouration of combs and wattles
 - haemorrhages on shanks of the legs and under the skin of the neck
 - head and body tremoring
 - respiratory distress such as gaping (mouth breathing), nasal snicking (sneezing sound), gurgling or rattling
 - lethargy and depression
 - recumbency and unresponsiveness
 - incoordination and loss of balance
 - loss of appetite or marked decrease in feed consumption
 - sudden increase or decrease in water consumption
 - fever or noticeable increase in body temperature
 - cessation or marked reduction in egg production or viability of eggs
- 14.2 Clinical signs can vary between species of bird and some species (for example ducks and geese) may show minimal clinical signs.
- 14.3 Infection with Low Pathogenic Avian Influenza (LPAI) virus is usually less serious and may show more vague clinical signs. For example, it may cause mild breathing problems but affected birds will not always show clear signs of infection. The severity of LPAI depends on the type of bird and its general health status and the genetics of the infecting virus.
- 14.4 While the clinical signs outlined above can indicate avian influenza, the presence of avian influenza virus can only be confirmed through laboratory tests. Wild birds are susceptible to a range of diseases and injuries and not all sick or dead birds will have been infected with avian influenza.

15 National Reference Laboratory

- 15.1 Avian influenza is a high consequence pathogen listed under [The Specified Animal Pathogens Order 2008 \(as amended\)](#) and [The Specified Animal Pathogens \(Wales\) Order 2008 \(as amended\)](#). In addition to being listed on the Advisory Committee on Dangerous Pathogens (ACDP) approved list of biological agents and the [Control of Substances Hazardous to Health Regulations 2002 \(as amended\)](#) (COSHH). Subsequently in most scenarios avian influenza needs to be handled at a high-containment SAPO licenced facility, as a result further post-mortem examinations are not typically conducted on wild bird carcasses which have tested positive for avian influenza.
- 15.2 For further information on requirements and obligations of individuals, private veterinary surgeons and laboratories with regard to biosafety and reporting to the competent authority for avian influenza and influenza of avian origin in mammals see the Technical Briefing Note Avian Influenza and Influenza of Avian Origin in Mammals Diagnostic Testing – Controls and Reporting Obligations available on gov.uk.
- 15.3 The National Reference Laboratory (NRL) for Avian Influenza is:
- Animal and Plant Health Agency (APHA)
 - Weybridge Laboratory
 - Woodham Lane
 - Addlestone
 - KT15 3NB
 - ENGLAND
- 15.4 APHA is also an avian influenza International Reference Laboratory (IRL) which is designated as a [WOAH avian influenza reference laboratory](#) and a [FAO Reference Centre for Animal Influenza](#).
- 15.5 Both the NRL and IRL operate in a SAPO, ACDP and Schedule 5 licensed facility.
- 15.6 All influenza diagnostic testing conducted at the avian influenza NRL and IRL uses [United Kingdom Accreditation Service \(UKAS\)](#) validated tests and is in line with WOAHA standards as set out for [Avian Influenza in the WOAHA Terrestrial Manual](#). APHA's laboratories are accredited to International Organization for Standardization (ISO) 17025 and have ISO 9001 certification and comply with the principles of Good Laboratory Practice. Further information on the UK's assurance landscape can be found in the [United Kingdom Multi-Annual National Control Plan \(UK MANCP\)](#) and the [UK assurance system for official controls in the agri-food chain](#) guide
- 15.7 Details of all UKAS validated front line diagnostic assays used by the avian influenza NRL can be found in the public domain at [FluGlobalNet: Laboratory Protocols](#).

16 Avian influenza wild bird surveillance

- 16.1 APHA carries out year-round avian influenza surveillance of dead wild birds submitted via public reports and warden patrols across Great Britain on behalf of Defra, Welsh Government and Scottish Government.
- 16.2 The public are encouraged to report findings of dead wild birds using the [online reporting system](#) or by calling the Defra helpline (03459 33 55 77). The online reporting tool launched on 13 December 2022 is available to use 24/7 (as is the Defra helpline), making it simpler and quicker for the public to submit reports whilst collecting data in real time.
- 16.3 Reports to the Defra Helpline and [online reporting tool](#) of found dead wild birds are triaged and not all birds will be collected. The criteria for which birds are collected (species and numbers) are adjusted to increase or decrease the sensitivity of surveillance. Adjustments to the surveillance criteria are discussed and agreed through the ADPG. The latest criteria used for triage are published on the gov.uk [report dead wild birds](#) guidance page.
- 16.4 APHA and their contractors then collect some of these birds for testing at the APHA NRL to help us understand the risk posed to poultry and other captive birds is. In addition to the risk to different species groups of wild birds through understanding how the disease is distributed geographically and in different types of wild bird.
- 16.5 The surveillance programme will not collect further wild bird carcasses from the same location (defined as a 3km radius of where the birds were found) and once carcasses have been collected from a given location, APHA and their contractors will not collect any more carcasses of the same species for at least 14 days.
- 16.6 A maximum of 5 birds will be collected from a particular location for testing when a mass die-off is reported.
- 16.7 Testing becomes unreliable as carcasses decompose, so if, after four days from the report, there has been no collection or no contact can be made with the person reporting the whereabouts of the carcasses, the carcasses will not be collected and will need to be disposed of appropriately (see section 25 for further information).
- 16.8 Collection and submission of dead wild birds which have been identified by APHA as required for avian influenza surveillance purposes will be arranged by APHA through their contractor UK Farmcare, who will deliver them to an official veterinary laboratory for post-mortem inspection and testing at the avian influenza NRL.
- 16.9 APHA publish a report (updated weekly) on [findings of HPAI in wild birds in Great Britain](#).

17 Diseases of Wildlife Scheme

- 17.1 In England and Wales, the APHA Diseases of Wildlife Scheme (DoWS) provides surveillance in wildlife for new and emerging diseases on behalf of government. Since 2009, surveillance for vertebrate (apart from cetacean) wildlife disease in GB has been the responsibility of the Great Britain Wildlife Health Surveillance Partnership, under the Chair of the APHA DoWS.
- 17.2 The Great Britain Wildlife Health Partnership (GBWHP) includes APHA, Scotland's Rural College (SRUC) Veterinary Services, Centre for Environment, Fisheries and Aquaculture Science (Cefas), Forestry England, WWT, NE, Institute of Zoology (IoZ) and the Garden Wildlife Health (GWH) project.
- 17.3 The [GWH](#) is a collaborative project between the Zoological Society of London (ZSL), the BTO, Froglife and RSPB which aims to monitor the health of, and identify disease threats to, specified species of British wildlife (amphibians, reptiles, hedgehogs and garden birds).
- 17.4 Wild birds are susceptible to a range of diseases and injuries and not all dead birds will have been infected with avian influenza. The APHA DoWS supports the work of the avian influenza NRL, together with investigating significant wild bird mortality or morbidity events in wild birds where avian influenza is either not suspected or suspicion has been negated. Under the APHA DoWS scheme for those birds that test negative for avian influenza to investigate the potential cause of mortality, a full post-mortem examination is undertaken provided the carcass is in a suitable condition.
- 17.5 In addition, while avian influenza viruses are predominantly considered a pathogen of birds, the virus can infect mammals. APHA routinely undertakes diagnostic testing of wild mammals found dead under the DoWS, and in coordination for marine mammals with the [Cetacean Stranding Investigation Programme \(CSIP\)](#). Where appropriate wild mammals submitted to DoWS are tested for influenza of avian origin in collaboration with the APHA avian influenza NRL.
- 17.6 The APHA DoWS work closely with the HSE [Wildlife Incident Investigation Scheme \(WIIS\)](#) run on HSE's behalf by NE and Welsh Government in England and Wales respectively. WIIS makes enquiries where possible into the death or illness of wildlife, pets and beneficial invertebrates that may have resulted from pesticide and rodenticide poisoning, with the objective of providing information to the regulator on hazards to wildlife and companion animals and beneficial invertebrates from pesticides and rodenticides; and to enforce the correct use of pesticides and rodenticides, identifying and penalising those who deliberately or recklessly misuse and abuse pesticides or rodenticides. Dead wild birds submitted to APHA where poisoning is suspected are investigated by DoWS in collaboration with WIIS where it is possible to handle carcasses and/or samples at appropriate biocontainment levels (SAPO and ACDP, see section 15 for further information).

18 Avian influenza research

- 18.1 The integration of surveillance activities with research is essential to continue the expansion of our understanding of avian influenza epidemiology. For wildlife populations, this includes identifying new host species and viral reservoirs, understanding the potential and scale of carryover effects in previous infected birds and supporting horizon scanning for virus strains circulating globally which may threaten the UK. In combination with molecular and virological studies, research may allow the identification of viral subtypes of particular concern (such as those expressing molecular patterns associated with increased virulence, viral replication, or cross-species transmission) and help to focus resources where they are likely to be of greatest benefit.
- 18.2 Defra continues to invest in avian influenza research and monitors the situation in Europe and globally. Defra funds research directly or by leveraging funding through [UK Research & Innovation \(UKRI\)](#), a [Department for Science, Innovation and Technology \(DSIT\)](#) funded non-governmental public body of which the [Biotechnology and Biological Sciences Research Council \(BBSRC\)](#) is a research council partner. In the last five years, £4.3 million has been invested in research, funded through BBSRC, either solely focussed on avian influenza vaccines, or as part of wider projects for poultry disease control.
- 18.3 In addition to supporting international collaboration through specific research projects, international collaboration and knowledge exchange is facilitated through discussions between the UK CVO and representatives from the APHA avian influenza NRL, and their counterparts in the European Union (EU) and globally through WOA, FAO and allied projects.
- 18.4 Knowledge exchange is facilitated through the [STAR-IDAZ International Research Consortium](#), which is run by a partnership including Defra, BBSRC, WOA, CAB International and Kreavet BV. STAR-IDAZ is a global initiative aiming to coordinate research programmes at the international level and to contribute to the development of new and improved animal health strategies for priority diseases, infections and issues, including avian influenza.
- 18.5 Alongside the Government's continued investment in the Avian Influenza NRL and APHA's Weybridge site, in June 2022 an eight-strong consortium '[FluMap](#)' bringing together experts from the UK's leading research bodies led by APHA, and funded by Defra and BBSRC was launched to develop new strategies to tackle avian influenza outbreaks.
- 18.6 The [FluMap](#) consortium aims to deliver research into how avian influenza viruses are emerging in wild populations and help us understand the risk posed to both domestic and wild birds including why some bird species are more resistant to avian influenza strains.

- 18.7 The research gaps addressed by [FluMap](#) the consortium were identified from the recent STAR-IDAZ International Research Consortium [Animal Influenza Research Review](#) and knowledge gaps identified during recent avian influenza outbreaks. Building on APHA long-history of involvement in international research consortia on avian influenza, including the [Delta Flu](#) project.

19 Wild bird population monitoring

- 19.1 Through the APHA wild bird surveillance scheme avian influenza has been detected in over 80 different species of wild birds. While the species of wild bird avian influenza is detected in varies between outbreaks, the most frequent detections are in waterbirds and bird of prey species, however this is influenced by their dominance in the wild birds reported by the public.
- 19.2 For the latest information on wild bird species in which avian influenza has been detected see the APHA outbreak assessments which are published and available as part of the [Animal diseases: international and UK monitoring](#) collection on gov.uk together with APHA's [weekly reports of HPAI findings in wild birds in Great Britain](#).
- 19.3 Of particular concern during the HPAI H5N1 outbreak that started in October 2021 has been the detection of avian influenza, in breeding populations of seabird species listed as [Great Britain Birds of Conservation Concern \(BoCC5\)](#), including:
- Roseate Tern (red-listed BoCC5 species)
 - Puffin (red-listed BoCC5 species)
 - Herring Gull (red-listed BoCC5 species)
 - Kittiwake (red-listed BoCC5 species)
 - Sandwich Tern (amber-listed BoCC5 species)
 - Arctic Tern (amber-listed BoCC5 species)
 - Common Tern (amber-listed BoCC5 species)
 - Black-headed Gull (Amber-listed BoCC5 species)
 - Guillemot (amber-listed BoCC5 species)
 - Gannet (amber-listed BoCC5 species)
 - Great Skua (amber-listed BoCC5 species)
- 19.4 In England, of particular concern were high levels of mortality of BoCC5 red-listed Roseate Terns at the UK's only breeding colony of this species on Coquet Island in Northumberland, and high levels of mortality at Sandwich Tern breeding colonies in Northumberland and Norfolk, compounding losses in colonies around the North Sea.

- 19.5 In addition, in Wales there were significant concerns following confirmation of avian influenza in Gannets (amber-listed BoCC5 species) on Grassholm Island off the Pembrokeshire coast in Wales; the largest of only two colonies of this BoCC5 species in Wales.
- 19.6 There is concern that high levels of mortality caused by avian influenza could have serious impacts on England and Wales's breeding seabird populations.
- 19.7 Since October 2021, HPAI H5N1 has also been detected in a number of red-listed BoCC5 waterbird species including Bewick's Swan and White-fronted Goose and amber-listed BoCC5 waterbird species including Barnacle Goose, Greylag Goose, Pink-footed Goose, Eider, Shelduck, Teal, and Black-necked Grebe.
- 19.8 Avian influenza has also been detected in bird of prey species of conservation concern, including White-tailed Eagle (red-listed BoCC5 species) and Hen Harrier (red-listed BoCC5 species). Birds of prey are susceptible to avian influenza and can be infected if exposed, either directly through contact with other birds, through the ingestion of infected material where the birds of prey feed on other infected birds or scavenge infectious material, or indirectly via contact with environmental contamination.
- 19.9 Long-term population monitoring and research is crucial to understanding the impacts of the disease on England and Wales's seabird populations. Population monitoring of seabird populations in England and Wales (and the rest of the UK) is done under the BTO/JNCC [Seabird Monitoring Programme \(SMP\)](#), which is jointly funded by the BTO and JNCC, in association with the RSPB.
- 19.10 The BTO/RSPB/JNCC [Wetland Bird Survey \(WeBS\)](#), the BTO/JNCC/NatureScot [Goose and Swan Monitoring Programme \(GSMP\)](#), the [Winter Gull Roost Survey \(WinGS\)](#), population counts in addition to and the BTO/JNCC [Avian Demography Schemes](#) that monitors breeding success and survival, all provide important information for assessing population changes. The BTO/JNCC/RSPB [Breeding Bird Survey \(BBS\)](#) also provides trends for a wide range of commoner breeding species and would be relevant for detecting any impacts on e.g. corvids, and common raptors. Together, these schemes provide assessments of the status of species populations and provide insights on drivers of change. However, it should be noted all population monitoring methods will have a lag period between the potential direct or indirect impacts of avian influenza and changes in populations. In order to assess the long-term impact of avian influenza on wild birds, population monitoring over multiple years, coupled with targeted research, is required to capture the impact of in particular any carryover effects on populations.
- 19.11 Further to this existing monitoring, in light of the unprecedented scale of the avian influenza outbreak since October 2021 and the potential impacts on wild bird species of conservation concern, NE and NRW have created a targeted mortality reporting system for gathering detailed information on wild bird mortality from site managers at key wild bird sites in England and Wales, utilising the [Epicollect](#) mobile data gathering platform.

- 19.12 In addition, there are also now options for recording mortality of wild birds through [WeBS](#) and [BirdTrack](#), which cover the whole of the UK.
- 19.13 The data gathered by Epicollect, WeBS and BirdTrack is being shared between relevant stakeholders on a regular basis. This data will help to support the APHA's work on monitoring the spread of HPAI and will help with assessing the impacts of the disease on wild bird populations in England and Wales. Understanding these impacts will help to inform species recovery programmes and measures to mitigate the impacts of the disease.
- 19.14 Reporting mortality via Epicollect, BirdTrack or WeBS does not replace the reporting of dead wild birds to Defra, either through the [online reporting system](#) or via the Defra Helpline (03459 33 55 77), which is essential for disease surveillance purposes.
- 19.15 Users of [EpiCollect](#), [WeBS](#) and BirdTrack are encouraged to also report to Defra, and to include their Defra report reference number as part of their wild bird mortality record.

20 Support for species recovery

- 20.1 The UK's wild birds are an important part of our natural heritage, and Defra and Welsh Government are committed to protecting them, not least as part of our commitment to hand the environment onto future generations in a better state.
- 20.2 England and Wales support internationally significant populations of birds and many of these species are species of conservation concern in the UK ([BoCC5](#) red or amber-listed).
- 20.3 Defra and Welsh Government recognise the significant threat HPAI poses to our wild bird populations. In particular when infection and transmission occur during the sensitive breeding period, and in long-lived species where carry over effects may be significant, decreasing the resilience of populations to recover from the impacts of avian influenza outbreaks.
- 20.4 The Avian Influenza Wild Bird Recovery Advisory Group (see section 10 for further information) is gathering information from conservation, land management and wildlife disease experts from a range of organisations to assess what further conservation and monitoring actions can be implemented with respect to wild birds.
- 20.5 Welsh Government has established a stakeholder group, the Welsh Wild Bird Avian Influenza Strategic Response Group (see section 13 for further information) which provides a platform to discuss and develop a strategic and evidence-based response to mitigating the impacts of avian influenza in wild birds and contributes towards building resilience and recovery of affected populations in Wales.
- 20.6 In addition, Defra and Welsh Government are continuing to engage with the [OSPAR](#) Heads of Delegation and [WOAH](#) to share best practice, mitigation measures.

- 20.7 The UK is also a Contracting Party to the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), a multilateral environmental agreement which aims to coordinate international effort for the conservation and management of migratory waterbirds including seabirds. The treaty is legally binding and implementation in the UK is undertaken through the legal protection of species and sites (many of which are designated in recognition of their international importance for migratory bird species), as well as direct conservation action.
- 20.8 The UK is heavily engaged in AEWA, and the Agreement contributes significantly to many biodiversity and recovery policy objectives.
- 20.9 Amongst significant UK contributions Defra continue to promote and encourage the full implementation of AEWA's International Single Species Action Plans for relevant breeding waterbirds such as Greenland White-fronted Goose, Barnacle Goose and Bewick's Swan. Coordinated action through international plans can significantly contribute to species recovery.
- 20.10 At [AEWA's 8th Meeting of Parties \(MOP\)](#) in September 2022 the UK proposed additional measures to improve collaboration on and monitoring of avian influenza across the treaty area (Africa & Europe) – these were adopted by all Contracting Parties. The UK also hosted an international meeting at the MOP which considered evidence needs and gaps, monitoring, and how parties might work collaboratively to support recovery of populations.
- 20.11 Defra has commissioned NE to assess seabird vulnerabilities in light of the pressures they are facing and propose actions to address them. The recommendations will form the technical underpinning of the English Seabird Conservation and Recovery Pathway (ESCaRP), which will support delivery of components within the recently published [Environmental Improvement Plan \(EIP\)](#). NE are finalising the ESCaRP which we are aiming to publish in the Spring 2023. We will work closely with stakeholders to understand the best way to implement and prioritise these actions.
- 20.12 In support of this work, Defra is looking to support the resilience in existing seabird populations and has built a comprehensive network of Marine Protected Areas (MPAs), which include sites to protect seabirds, and are now focusing on ensuring our MPAs and Special Protection Areas (SPAs) are properly protected.
- 20.13 Defra has also launched a consultation seeking views on options for the future management of sandeels in UK waters. This includes potential measures that could be introduced in English waters to reduce the impacts of industrial fishing on the marine ecosystem through the removal of sandeels. The consultation has been developed based on scientific advice ([Evidence Report](#)) from experts at NE, JNCC and Cefas, and closes 30th May 2023.

- 20.14 In addition with regard to broader resilience in seabird populations, Defra-funded research on the accidental capture (bycatch) of seabirds in fishing gear has highlighted possible impacts on some species in UK waters. In August 2022 Defra published the [Marine Wildlife Bycatch Mitigation Initiative](#). This initiative identifies policy objectives and actions to achieve, as part of the Fisheries Act's ecosystem objective, improving our understanding of where and how much bycatch occurs and implementing effective mitigation measures to minimise or eliminate bycatch.
- 20.15 Welsh Government are developing a Seabird Conservation Strategy which will assess the vulnerability of seabird species and identify a number of high-level actions to support the conservation of seabirds given these pressures and threats.
- 20.16 While there is an increasing body of evidence on the impact that avian influenza is having on some BoCC5 species of wild birds, in particular seabirds, the H5N1 outbreak which commenced on the 26 October 2021 has not yet concluded at time of publication. As such, as well as being unprecedented in its scale and the breadth of species affected, the H5N1 avian influenza outbreak should still be considered an evolving situation.
- 20.17 Species population monitoring may reveal further species which have been significantly impacted in the short term, together with further information on how resilient species are with regard to recovering from the impacts of avian influenza. The potential for further incursion and circulation of additional strains of avian influenza and further new species being impacted can also not be discounted.

21 Biosecurity in natural settings

- 21.1 This section of guidance is aimed at landowners and organisations responsible for natural areas where the general public have access to, or who undertake activities involving wild birds.
- 21.2 **Contingency plans** consider possible scenarios that may arise in the future and should incorporate designing strategies to manage these potential risks and threats. Contingency planning is essential for ensuring a rapid, coordinated and well informed response to animal disease outbreaks can occur. Organisations responsible for the management of land where wild birds may be found should have contingency plans in place in the event that there is an increased risk of avian influenza being detected on their land or that avian influenza is in birds whether kept or wild on their land. Or that influenza of avian origin has been detected in mammals on their land. These contingency plans should be integrated into the general site management plans and be readily available to staff, and staff should be familiar and trained in their operation in advance.
- 21.3 General health and safety guidance can be found on the [HSE website](#) together with information on [Working with Avian influenza virus \(hse.gov.uk\)](#) and the HSE's [Avian influenza - Agriculture health topics - HSE](#) guidance.

- 21.4 **Communication** is a key measure in mitigating risk of transmission of avian influenza between birds and protecting public health. During periods of increased risk from avian influenza signage should be displayed at key access and other points on sites warning the general public of the risk of avian influenza and the measures they can take to protect themselves and both kept and wild birds from avian influenza. Example posters are provided by the APHA and are available for use at:
- [Bird flu \(avian influenza\): posters for land managers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/442427/bird-flu-posters-land-managers.pdf)
 - [Bird flu \(avian influenza\): posters for bird keepers - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/442428/bird-flu-posters-bird-keepers.pdf)
- 21.5 Details of the national risk of incursion of avian influenza are published on [gov.uk/bird-flu](https://www.gov.uk/bird-flu). Details of the scientific and ornithological evidence which underpins these risk levels can be found in the APHA risk and outbreak assessments published and available on gov.uk at as part of the '[Animal diseases: international and UK monitoring](#)' collection.
- 21.6 **Cleansing and disinfection**, localised or targeted use of disinfectants including cleansing and disinfection of clothing, footwear, equipment and vehicles, should be considered at key access points to sites and activities where people or equipment come into contact with wild birds or their environment. However appropriate use and disposal of disinfectants so they do not damage the environment is essential. The [list of Defra-approved disinfectants](#) sets out which products should be used for avian influenza as a statutory disease control measure, and the concentration of the disinfectant you must use. Further information is provided on gov.uk in the [Defra-approved disinfectants guidance](#).
- 21.7 Spraying of the environment with disinfectant is considered counter-productive, harmful to the environment and not effective from a disease control perspective.

22 Restrictions on activities

- 22.1 All disease prevention and control measures are kept under regular review and are based on the latest scientific and ornithological evidence and veterinary advice.
- 22.2 **Bird ringing**
- 22.2.1 Ringing activity is undertaken by ornithologists, researchers and volunteers overseen by the BTO on behalf of the UK Nature Conservation agencies. Ringing permits issued by the BTO allow the catching of birds for ringing purposes in England and Wales under the [Wildlife and Countryside Act 1981](#).
- 22.2.2 The information gathered provide data on the survival and breeding success of bird species that enable evaluation of the drivers of population change.

- 22.2.3 During outbreaks or periods of increased risk of avian influenza incursion it is essential that appropriate measures are in place to ensure that bird ringing activity can continue where possible to enable continuity in population monitoring activity whilst mitigating the risk of increasing transmission of avian influenza within or between bird populations under study and protecting public health of those involved in the activity.
- 22.2.4 Defra, Welsh Government, NE, NRW, JNCC and APHA have worked with BTO to develop their [HPAI Ringing Framework](#) which provides a summary of current permissions set out by NE and NRW in England and Wales respectively (together with the relevant agencies in Scotland and Northern Ireland). These restrictions are based on a risk-based approach, taking into account site and species knowledge. With the objective of managing avian influenza associated risk so that ringing activity does not present a risk to study species.
- 22.2.5 Advice on any restrictions on ringing activity are kept under regular review by Defra, Welsh Government, NE, NRW, JNCC, APHA and the BTO. Consideration is given to the national avian influenza risk levels in addition to the likelihood of infection, conservation status, habitat and behaviour of the different taxonomic groups of birds for which ringing activities are undertaken when assessing the need to apply either national, regional or localised restrictions on ringing activities.
- 22.2.6 Where active suspensions on ringing are in place NRW and NE in conjunction with BTO where relevant will consider requests for exemptions where the value of the data collected is deemed to be significant with respect to national monitoring priorities, including those relating to avian influenza impact assessment.
- 22.2.7 Bird ringers should not handle sick or dead wild birds and ringing activity in high density wild bird populations such as seabird colonies where avian influenza is suspected or confirmed must be subject to site-specific risk assessment. However, visits to, for example, seabird colonies by ringers to assess colony health, check affected birds for rings, and carry out standard monitoring can yield valuable data if they can be undertaken in a manner in which health and safety concerns can be addressed and the risk of onward transmission can be managed.
- 22.2.8 Even where wild birds are not showing signs of infection, it is not safe to assume that the virus is not circulating, and appropriate biosecurity and hygiene precautions should be adopted when carrying out any activities within or near any wild populations. Bird ringers should follow the latest [Guidance information for volunteer fieldworkers | BTO - British Trust for Ornithology](#) regarding bird welfare and biosecurity.

22.2.9 In addition, Defra, Welsh Government, NE and NRW in association with UKHSA and PHW, work directly and through BTO where relevant with specialist groups involved in ringing activities to provide guidance on recommended restrictions and permissions on ringing activities during avian influenza outbreaks and periods of increased risk. Including for example the King's Swan Marker and the Worshipful Companies of Vintners and Dyers.

22.3 Access to sites

22.3.1 For areas where an [Avian Influenza Prevention Zone \(AIPZ\)](#) is in force access to areas where poultry and other captive birds are kept must be restricted to only essential personnel.

22.3.2 In addition, access to premises where notifiable avian influenza has been confirmed in poultry or other captive birds is restricted. Access to infected premises would only be permitted following a veterinary risk assessment and under licence from the APHA.

22.3.3 Outside of these restrictions, there is no legal requirement for government, local authorities or landowners to limit access to public areas or close rights of way due to avian influenza.

22.3.4 However, where findings of avian influenza in wild birds have occurred in public areas, local authorities and other land managers may take a precautionary approach to protect the health and welfare of birds and to limit the risk of infection being transferred on footwear etc to other areas by restricting access to areas where wild birds frequently congregate where this does not impact public rights of way. Applying access restrictions should be assessed by land managers on a case-by-case basis.

22.4 Feeding Wild Birds

22.4.1 The feeding of wild birds in the open is not an offence either through the AIPZ measures or other avian influenza legislation. However, some wild birds, particularly waterbirds such as ducks, geese and swans, are known to be carry avian influenza. We encourage anyone feeding birds to do so responsibly and not feed them in the vicinity or on the same premises as poultry or other captive birds.

22.4.2 All bird keepers must comply with the mandatory biosecurity requirements of any AIPZ or disease control zones in force and prevent direct or indirect contact between their birds (poultry and other captive birds) and wild birds.

22.4.3 In areas where an AIPZ is in force released game birds must not be fed within 500m of the restricted access part of a premises where 500 or more poultry or other captive birds are kept where this area is under the control of the keeper. Find out more in the guidance on [Bird flu: rules if you keep game birds - GOV.UK \(www.gov.uk\)](#)

22.4.4 If you feed wild birds in your garden, read advice from the [BTO to keep feeders and water baths clean](#). This will help to stop avian influenza and other diseases spreading between different birds.

- 22.4.5 Wash your hands with soap and water after feeding wild birds.
- 22.4.6 Take steps to minimise the risk of transferring virus from the environment between wild birds feeding areas and/or to areas where poultry or other captive birds are kept by undertaking appropriate cleansing and disinfection of footwear, vehicles, equipment etc with a [Defra approved disinfectant](#).

22.5 Shooting

- 22.5.1 Defra and Welsh Government have explored the benefit of introducing wildfowl hunting restrictions to help limit the spread of avian influenza.
- 22.5.2 Expert opinion provided by the OEP (see Section 9 for further details on the OEP) and associated risk assessment during the HPAI H5N8 outbreak in 2016 and 2017 concluded that wildfowling, or more general shooting of ducks and geese, would not significantly increase the risk for immediate long distance spread of avian influenza infected wild birds due to the low number of people or guns utilised in any one wildfowling event, and considering these species are highly mobile during their normal day-to-day activity.
- 22.5.3 Driven game shoots were considered a lower risk due to the limited dispersal of managed wild game. Expert opinion considered that these birds usually fly only short distances from one area of cover to another and are not flying over long distances when disturbed by shooting activity. However in contrast to wildfowling events a greater number of people will be involved in this type of shoot. Pigeon shooting was considered to be an even lower risk, as it is generally used as pest control around crops.
- 22.5.4 As such these activities would have a minimal impact on immediate long distance dispersal of birds around a region, above their normal daily movements, with a likely local and temporary redistribution of birds. Therefore, these activities represented a very low risk of increasing (above existing levels) the geographic spread of wild birds infected with avian influenza over long distances or into new areas.
- 22.5.5 In light of the substantial additional information generated from the widespread outbreaks of avian influenza during 2021 and 2022, Defra in conjunction with Welsh Government and Scottish Government commissioned an updated risk assessment undertaken by APHA on what impact water-fowling, driven game shooting and woodpigeon shooting could have the immediate long-distance dispersal of wild birds, and how that could impact on the geographic spread of wild birds infected with HPAI.
- 22.5.6 The updated risk assessment was published in August 2022 assessing the [risk of HPAI H5N1 from the shooting of wild waterfowl and wild game \(including formerly captive\) birds \(23 August 2022\)](#). The assessment reaffirmed the conclusion of the earlier assessment that at the time of publication wildfowling, driven game shooting and pigeon shooting activities were not considered to significantly increase the risk for long distance dispersal beyond that of routine movement of infected wild birds.

- 22.5.7 In September 2022 a further assessment looking at the [risk for the spread of Highly Pathogenic Avian Influenza \(HPAI\) H5N1 from wild birds to poultry from the shooting of wild waterfowl and wild game \(including formerly captive\) birds \(28 September 2022\)](#) was published. The assessment concluded at the time of publication there was a very low additional risk nationally above the background risk (low for stringent biosecurity to medium for sub-optimal biosecurity) to poultry premises or captive birds posed by allowing shooting of wild game in autumn 2022, outside of disease control zones (protection or surveillance zone). At sites local to the shoot, the risk to poultry with poor biosecurity may be elevated through driven game shooting.
- 22.5.8 While the risk assessment considers the generic risk and impacts from shooting land managers should review on a case-by-case basis the impact shooting activities may have on species of conservation concern which are present on or close to their land.
- 22.5.9 Defra and Welsh Government actively work with shooting and game keeping organisations to communicate biosecurity best practice to waterfowlers and others involved in the gamekeeping community.
- 22.5.10 Details of the evidence which supports these assessments is available on gov.uk as part of the '[Animal diseases: international and UK monitoring](#)' collection.
- 22.5.11 Further restrictions on shooting activities may be applied if an avian influenza strain of significant public health concern is detected in wild birds (see section 23 for further information).

22.6 Lethal control licences

- 22.6.1 Some species of wildlife have legal protection. NE and NRW issue licences on behalf of Defra in England and Welsh Government in Wales respectively that allow activities affecting protected species that are otherwise prohibited. Some of these licences allow lethal control.
- 22.6.2 Before issuing a licence, the wildlife licencing authorities in England and Wales carefully consider the circumstances of a case, the justification for it and the impact on the species as a whole in accordance with the latest evidence.
- 22.6.3 NE and NRW review individual licence applications to consider the risks both to the target species from control activities and the likelihood that control activity may contribute to HPAI dissemination.
- 22.6.4 In addition, in England, Defra also issue [three general licences](#) for controlling certain wild birds for different purposes. You do not need to apply for a general licence, but you must comply with the licence conditions.

22.7 Game bird release and catching-up

- 22.7.1 As defined by the [Avian Influenza and Influenza of Avian Origin in Mammals \(England\) \(No. 2\) Order 2006 \(as amended\)](#) under avian influenza rules in England, game bird means any pheasant, partridge, grouse (or moor game), black (or heath) game or ptarmigan or ducks bred for shooting. While a ‘wild game bird’ means a bird which lives freely in the wild and is hunted for human consumption.
- 22.7.2 As defined by the [Avian Influenza and Influenza of Avian Origin in Mammals \(Wales\) \(No 2\) Order 2006 \(as amended\)](#) under avian influenza rules in Wales a ‘wild game bird’ means a bird which lives freely in the wild and is hunted for human consumption.
- 22.7.3 Definitive requirements within any disease control zone or AIPZ currently in force in England can be in the [Notifiable animal disease cases and control zones - GOV.UK \(www.gov.uk\)](#) case finder and in Wales in the [Avian influenza \(bird flu\): latest update | GOV.WALES](#) information. The location of disease control zones currently in force can be viewed using the [APHA avian influenza interactive map](#). Further guidance on the rules in England can be found in the Defra [Bird flu: rules in disease control and prevention zones in England - GOV.UK \(www.gov.uk\)](#) guidance, and for Wales on the Welsh Government [Avian influenza \(bird flu\): latest update | GOV.WALES](#) pages.
- 22.7.4 Release of game birds is not permitted in disease control zones surrounding infected premises where avian influenza has been confirmed in poultry or other captive birds (England: Schedule 4, paragraph 13 [Avian Influenza and Influenza of Avian Origin in Mammals \(England\) \(No. 2\) Order 2006 \(as amended\)](#); Wales: Schedule 4, paragraph 13 [Avian Influenza and Influenza of Avian Origin in Mammals \(Wales\) \(No 2\) Order 2006 \(as amended\)](#)).
- 22.7.5 Prior to release game birds are considered to be poultry and subject to all the same rules as other poultry species, including requirements of any disease control zone or AIPZ in force. However, once game birds have been released, they are classed as wild birds for avian influenza rules and the person who released the game birds is no longer ‘the keeper’ of the birds. Further information can be found for England in the Defra [Bird flu: rules if you keep game birds - GOV.UK \(www.gov.uk\)](#) guidance, and for Wales on the Welsh Government [Avian influenza \(bird flu\): latest update | GOV.WALES](#) pages
- 22.7.6 During outbreaks, there are controls on the release of game birds in areas of known high risk. The release of game birds is not permitted in any avian influenza disease control zone, nor are game bird releases permitted while an avian influenza prevention zone including mandatory housing measures is in force.

- 22.7.7 To ensure Defra and Welsh Government's approach to disease control in poultry and captive birds reflects any risk these activities pose, APHA has assessed the impact pheasant releases have on the likelihood of transmission of avian influenza to wild birds, and between wild birds and kept birds. This risk assessment has been published and can be found in as part of the ['Animal diseases: international and UK monitoring'](#) collection - [Risk Assessment on the spread of High Pathogenicity Avian Influenza \(HPAI\) H5N1 to wild birds from released, formerly captive gamebirds in Great Britain Pheasants \(gov.uk\)](#).
- 22.7.8 In England, additional rules apply to the release of common pheasants or red-legged partridges into the wild on designated European sites or within 500 metres of their boundary. In determining these rules Defra undertake a Habitats Regulations Assessment (HRA) and seek NE's advice as required under the [Wildlife and Countryside Act 1981](#) and the [Conservation of Habitats and Species Regulations 2017](#). See [Gamebirds: decision to issue the gamebird general licence for 2022 to 2023 - GOV.UK \(www.gov.uk\)](#) and [Gamebirds: licence to release common pheasants or red-legged partridges on European sites and within 500m of their boundary \(GL43\) - GOV.UK \(www.gov.uk\)](#) for further information.
- 22.7.9 Following the outcome of a risk assessment additional precautionary measures around the movement of caught up game birds are in place effective from 9 January 2023 in England and Wales. The new rules apply when an AIPZ is in force and mean that recently caught up birds cannot be moved for 21 days. These measures aim to minimise the risk of spreading infection to new premises, to help reduce the risk of the disease spreading and maintain England and Wales strict biosecurity standards. Further information can be found for England in the Defra [Bird flu: rules if you keep game birds - GOV.UK \(www.gov.uk\)](#) guidance, and for Wales on the Welsh Government [Avian influenza \(bird flu\): latest update | GOV.WALES](#) pages
- 22.7.10 Government have joined with organisations involved in game bird management to issue guidance on avian influenza and the way it can affect the activities of game bird rearers. This guidance has been prepared by game shooting, research, and game conservation bodies. It is endorsed by Defra, Scottish Government, Welsh Government and DAERA in Northern Ireland and is available on the [Game Farmers Association Website](#).

23 Avian influenza strains of significant public health concern

- 23.1 There are five strains of avian influenza that have caused public health concern in recent years: H7N9, H9N2, H5N6, H5N8 and a H5N1 strain more common in Asia. None of these strains easily infect people and are not usually spread from human to human, however a small number of people have been infected around the world and so government and individuals should precautionary steps to mitigate this risk as much as possible.
- 23.2 Government scientists undertake epidemiological monitoring and genomic surveillance work to inform our assessment of the risk of avian influenza to human health. Genomic analysis of samples from the APHA national and international avian influenza reference laboratory are a key contributor to these assessments. Further information is available in UKHSA's [Avian influenza: guidance, data and analysis](#) collection.
- 23.3 UKHSA and PHW monitor public health risks related to avian influenza including close collaboration with APHA in relation to reported detections of HPAI in kept or wild birds in England and Wales respectively. Appropriate action is taken by UKHSA in England to protect public health in line with the [national guidance for managing the human health risk of avian influenza in poultry and wild birds](#) and by PHW in Wales in line with Public Health Wales Avian Influenza Standard Operating Procedure.
- 23.4 Where an avian influenza strain with significant public health concern (as assessed by the UKHSA and PHW for England and Wales respectively) is detected in wild birds, additional control measures may be put in place surrounding the wild bird finding.
- 23.5 Potential actions which may be taken in this scenario are set out in the [Notifiable Avian Influenza Disease Control Strategy for Great Britain](#) (in line with the [Avian Influenza \(H5N1 in Wild Birds\) \(England\) Order 2006 \(as amended\)](#) in England and the [Avian Influenza \(H5N1 in Wild Birds\) \(Wales\) Order 2006 \(as amended\)](#) in Wales). Their application will be subject to a veterinary risk assessment based on expert opinion, ornithological advice, in addition to the consideration of trade implications and UKHSA and PHW's public health advice.
- 23.6 In summary, measures taken may include the declaration of wild bird control area (WBCA) and wild bird monitoring area (WBMA) surrounding findings in wild birds. The size and shape of these areas may be based on an assessment of the risk of disease spreading to poultry or other captive birds taking into account
- Geographical features
 - Administrative boundaries (for example county or unitary council boundaries)
 - Those relating to the water environment in the locality
 - Ecological factors

- The extent of the outbreak
- Monitoring facilities
- Location and extent of poultry and other captive birds

- 23.7 When zone surrounding findings of avian influenza in wild birds are declared movement restrictions may apply within the WBCA and WBMA to poultry and captive birds and items associated with their keeping e.g. poultry litter and poultry products (see the [Notifiable Avian Disease Control Strategy for Great Britain](#) for further details). Enhanced biosecurity potentially including housing measure may also apply to poultry and other captive birds in the areas. The definitive requirements and who and what they apply to within any WBCA or WBMA in force will be set out in the declaration for the area published for England in the [Notifiable animal disease cases and control zones - GOV.UK \(www.gov.uk\)](#) case finder and for Wales in the [Avian influenza \(bird flu\): latest update | GOV.WALES](#) information and their locations viewed using the [APHA avian influenza interactive map](#).
- 23.8 When declared, a WBCA must remain in force for at least 21 days from the date of collection of samples from the infected wild bird, unless indicated by successful completion of all surveillance in poultry and other captive birds required in the area, no suspect premises under investigation in the area and the favourable outcome of a veterinary risk assessment.
- 23.9 When revoked following the successful completion of any relevant disease control and surveillance activities the area which comprised the WBCA is merged with and becomes part of the WBMA. WBMA's must remain in force for at least 30 days from the date of collection of samples from the infected wild bird. WBMA's will only be revoked following the successful completion of any disease control and surveillance activities required within the area.
- 23.10 While the majority of restrictions and surveillance activities within WBCA and WBMA's apply to poultry and other captive birds, other restrictions may be applied to activities associated with wild birds, including:
- 23.10.1 The prohibition of hunting of wild birds or 'otherwise take them from the wild' in a WBCA or WBMA except under licence (England: Schedule 1, para 17 [Avian Influenza \(H5N1 in Wild Birds\) \(England\) Order 2006 \(as amended\)](#); Wales: Schedule 1, para 17 [Avian Influenza \(H5N1 in Wild Birds\) \(Wales\) Order 2006 \(as amended\)](#)).
- 23.10.2 The release of game birds in a WBCA or WBMA (England: Schedule 1, para 18 [Avian Influenza \(H5N1 in Wild Birds\) \(Wales\) Order 2006 \(as amended\)](#); Schedule 1, para 18 [Avian Influenza \(H5N1 in Wild Birds\) \(Wales\) Order 2006 \(as amended\)](#)).
- 23.11 All decisions on whether to apply these control measures within any WBCA or WBMA in force will be subject to the outcome of a veterinary risk assessment containing the latest scientific and ornithological evidence and veterinary advice supported by public health risk assessments.

24 Culling for disease control and euthanasia on welfare grounds

- 24.1 The control of avian influenza infection in wild bird populations through a stamping out policy, as used in poultry or other captive birds, is not considered effective or feasible from a logistical, environmental and biodiversity perspective.
- 24.2 Defra and Welsh Government's approach to not cull wild birds for disease control purposes is in line with FAO and WOA's best practice, and our international obligations under CMS, the [Ramsar Convention](#) and AEWA.
- 24.3 However, the euthanasia of sick wild birds, provided it can be carried out in a safe and humane manner, may be considered based on animal welfare grounds.
- 24.4 Sick or injured wild birds should not be reported through the [online dead wild bird reporting system](#) or to the Defra Helpline. In England and Wales sick or otherwise injured birds can be reported to the RSPCA (0300 1234 999) who dependent on the situation may be able to offer assistance. Other local private veterinary clinics or wildlife rehabilitation centres may also be able to assist. This may include euthanasia if appropriate for the welfare of the bird.
- 24.5 Further information for veterinary practitioners on the assessment of sick wild birds where clinical signs suspicious of avian influenza are identified and appropriate methods of euthanasia suitable for outside of the veterinary practice premises can be found in the British Veterinary Associations (BVA) [Avian influenza \(AI\) advice for vets dealing with wild birds and backyard poultry \(bva.co.uk\)](#) guidance.

25 Removal and disposal of dead wild birds

- 25.1 Wild birds are susceptible to a range of diseases and injuries and not all dead birds will have been infected with avian influenza. However, our general advice to the general public is to not touch or pick up any dead or visibly sick birds that they find.
- 25.2 Members of the public are encouraged to report findings of dead wild birds using the [online reporting system](#) or by calling the Defra helpline (03459 33 55 77) (see section 16 for further information).
- 25.3 Where dead birds are not required for avian influenza surveillance purposes, they may be eligible for other surveillance schemes such as DoWS or WIIS (see section 17 for further information). However, there are many reasons why birds die, and further investigation is not required or warranted in many circumstances.
- 25.4 In general, we do not recommend that wild bird carcasses are removed. If removal is warranted (see below) it is the landowner's responsibility to safely arrange disposal of the carcasses. Landowners are responsible for any costs associated with removal and disposal of dead wild birds. If removal is warranted (see below) where dead birds are on public land it is the local authority's responsibility to arrange disposal of the carcasses.

- 25.5 Keepers must ensure any wild bird carcasses are removed from areas where poultry, other captive birds or other kept susceptible species have access to or areas which are associated with their keeping, for example bedding storage areas. Outside of these areas there is no obligation on landowners or local authorities to remove found dead wild birds when they are not causing a public hygiene risk, however consideration of their removal is recommended when dead wild birds are found:
- at residential premises, in particular when in areas which may be accessed by children or pets
 - in urban or suburban areas or rural access routes, for example on footpaths, with frequent human footfall
 - in areas where the likelihood of significant exposure of carcasses to other wild birds (or other susceptible species) for example areas where carcasses can be easily scavenged, or carcasses are in key feeding, breeding and roosting areas.

This assessment will be highly site specific and should be made on the basis of an assessment of the location and species of bird present

- 25.6 The carcasses of wild animals, including wild birds, which are suspected of being infected with a disease which can spread to people or animals such as avian influenza, if removed must be disposed of as a category 1 Animal by Products (ABP). See the Defra [Animal by-product categories, site approval, hygiene and disposal - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/animal-by-product-categories-site-approval-hygiene-and-disposal) guidance and Welsh Government [Animal by-products: guidance | GOV.WALES](https://gov.wales/animal-by-products-guidance) for further information.
- 25.7 Derogations from the rules governing ABP disposal of wild birds suspected of being infected with avian influenza may be available in a very limited set of situations, including disposal in remote areas. Derogations must be approved by APHA and will be assessed on a case-by-case basis. For further information contact the APHA ABP team at csconehealthabp@apha.gov.uk. Additional authorisations from the Environment Agency, NE, NRW and other relevant agencies may also be required dependant on the situation.
- 25.8 To ensure our approach to avian influenza risk mitigation in wild birds and advice on carcass removal, reflects any risk these activities pose, on behalf of Defra, Welsh Government and Scottish Government the [EPIC Centre of Expertise on Animal Disease Outbreaks](https://www.gov.uk/government/organisations/epic-centre-of-expertise-on-animal-disease-outbreaks) has assessed the likelihood of onward transmission of HPAI H5N1 to other wild birds, other wildlife, and poultry and other captive birds, if carcasses of wild birds believed to have died infected with HPAI H5N1 are removed in the event of mass mortality in Great Britain compared to leaving carcasses in situ.

25.9 The outcome of the EPIC concluded assessment concluded that:

25.9.1 In areas of high bird density (e.g. seabird nesting sites), carcass removal is likely to be least effective at reducing the overall viral load due to extensive environmental contamination which has already occurred from both live and dead birds. Human access to remove carcasses at high density locations is likely to result in disturbance of live wild birds. Impacts will vary by species and site, but this could result in increased movement of birds, both at the original location and to other sites, with potential for greater spread of infection. Stress due to disturbance from carcass removal also has the potential to increase the birds' susceptibility to infection.

25.9.2 In areas of low bird density (e.g. beaches with few live birds present), background levels of environmental contamination are likely to be lower, hence removal of carcasses may have relatively more impact on the local viral load in the environment. In those circumstances, the likelihood of disturbance to birds and other wildlife species is also likely to be low. Carcass removal is likely to have the greatest impact on reducing the viral load present in carcasses if carried out as soon as possible after death, when the levels of virus present in carcasses is highest, particularly as scavenging appears to be the main route where direct transmission from infected carcasses to susceptible birds.

25.10 However the overall uncertainty in the risk estimates in the EPIC assessment were high for all outcomes.

25.11 EPIC assessment outcomes correspond with emerging evidence from seabird colonies in Continental Europe that carcass removal may be effective in reducing incidence in some species when the risk of movement of the virus around the colonies by carcass collectors can be mitigated, together with the welfare impacts of entering the colony areas. Removal in these areas should be assessed by land managers on a case-by-case basis with site accessibility, ability to dispose of carcasses in line with ABP disposal rules and the health protection of those involved in the removal of carcasses being a significant consideration in whether to proceed with removal.

25.12 If landowners or managers decide to proceed with carcass removal all necessary arrangements for appropriate disposal in line with ABP disposal rules and the provision and use of appropriate personnel protective equipment (PPE) and respiratory protective equipment (RPE) by individuals involved in the removal, must be in place prior to commencing removal and disposal activities.

25.13 As further evidence on the effectiveness of carcass removal on reducing incidence of avian influenza in wild birds emerges from sites in the UK or overseas, this guidance will be updated to reflect any relevant evidence and corresponding advice.

- 25.14 Where dead birds are not required for avian influenza surveillance purposes (see section 15 for further information) a decision has been taken to remove the carcasses follow the guidance for the appropriate scenario set out below. This guidance can also be found for England at [Removing and disposing of dead wild birds - GOV.UK \(www.gov.uk\)](http://www.gov.uk) and for Wales at [Report and dispose of dead birds | GOV.WALES](http://gov.wales).
- 25.15 This disposal guidance is applicable to incidents where the where the risk to public health from the circulating avian influenza virus is determined as either a low or very low risk to public health as assessed by UKHSA and PHW. Further information on risk level of relevant strains can be found in UKHSA's [Avian influenza: guidance, data and analysis](#) collection.

Scenario 1: small numbers of garden birds at domestic premises

- If you find small numbers of dead wild [garden birds](#) (for example black birds, magpies, tits, finches, collared dove, woodpigeons, robins) at your home (domestic residential properties only) which are not required for surveillance purposes you can dispose of them in your household or municipal waste bin, or you can bury them.
- These disposal methods are not applicable to disposing of larger birds or large numbers of birds. If a bird carcass is too large for effective bagging and disposal in domestic waste, residents should follow the advice in scenario 2.

Disposal of small numbers of garden birds in household or municipal waste refuse

If you dispose of a dead wild bird with your household or municipal waste, you should:

1. Pick it up wearing disposable gloves or a plastic bag over your hand.
2. Put the bird in a plastic bag and tie it. Make sure the bird does not touch the outside of the bag.
3. Put the bird in a second (preferably leak proof) plastic bag, along with the gloves or plastic bag you used to pick it up and tie it. Take care not to touch the outside of the gloves with bare hands.
4. Put it in your outside household or municipal waste bin.
5. Wash your hands thoroughly with soap and water.

Burial of small numbers of garden birds

If you bury a dead wild bird, you should:

1. not bury it near any watercourses or in a place where it could contaminate local water supplies.
2. wear gloves or use a plastic bag if you need to pick up the bird.
3. dig a hole at least 60cm deep to stop animals digging it up.
4. not bury it in a plastic bag (if you use a plastic bag or gloves to pick the bird up put it in your outside household or municipal waste bin, take care not to touch the outside of the gloves or inside of the bag which has been in contact with the dead bird with bare hands).

5. wash hands thoroughly with soap and water.

Scenario 2: larger numbers of dead garden wild birds or non-garden wild bird species at domestic premises

- There is a higher suspicion of avian influenza when there are deaths of multiple birds in a specified location. There is also greater uncertainty if the found dead wild birds are not typical garden bird species (for example. black birds, magpies, tits, finches, collared dove, woodpigeons, robins). Therefore additional precautions for the collection and disposal of birds in these scenarios is advised.
- If the dead wild birds are not required for surveillance purposes, residents should dispose of the carcasses by:
 - Enlisting the services of an ABP waste disposal service; or
 - Contacting the environmental health service of their local authority who may be able to provide further advice on ABP waste disposal service or assist with disposal.
- Individuals involved with collection and disposal of ABP should follow the PPE guidance as outlined in Scenario 3 below. Exceptions include when avian influenza is not suspected, see Scenario 4 for further information.

Scenario 3: public, managed estates or other private land where avian influenza has been confirmed or avian influenza is suspected but without testing or prior to test results

- This scenario includes, but is not limited to, the following:
 - Wild bird deaths relating to confirmed avian influenza incidents (such as birds which are part of a mass die-off in which avian influenza has been confirmed)
 - Bird deaths during periods, and in geographical areas, where avian influenza is known to be circulating in wild bird populations as reported on [gov.uk/bird-flu](https://www.gov.uk/bird-flu).
 - Larger numbers of dead wild birds (or 'die-offs') of unknown cause, for example five or more in the same location.
- Where dead birds are on public land, and where a decision has been made to remove and dispose the carcasses, it is the local authority's responsibility to safely dispose of the carcasses as ABP Category 1 material. Local authorities may themselves have a contract with specialist providers to ensure that the dead birds are collected and disposed of biosecurely in line with ABP guidance.
- Where the land is privately owned, and where a decision has been made to remove and dispose of the carcasses, it is the landowner's responsibility to safely dispose of the carcasses as ABP Category 1 material by:
 - Enlisting the services of a commercial ABP waste disposal service; or
 - Contacting the environmental health service of their local authority who may be able to provide further advice on ABP waste disposal service or assist with disposal.

Personal protective equipment

- Individuals involved in collection and disposal will need the appropriate personal protective equipment PPE including:

- Filtering Face Piece (FFP) 3 respirator, following a fit test. Further guidance is available in the [Fit testing basics - Respiratory protective equipment \(RPE\) \(hse.gov.uk\)](#) guidance from HSE
- goggles
- rubber or polyurethane boots
- disposable gloves.
- Footwear should be cleansed and disinfected and coveralls either disposed or washed. Staff should receive training to cover the safe methods required including getting PPE on and off without contamination, see [HSE - Skin at work: Removing gloves without contaminating your hands](#) video guidance for further information.
- The HSE provide further advice on PPE in relation to avian influenza risks in their '[Avoiding the risk of infection when working with poultry that is suspected of having H5 or H7 notifiable avian influenza \(hse.gov.uk\)](#) guidance document.

Additional public health actions where avian influenza is confirmed

- The activities outlined in Scenario 3 may also require consideration of antiviral prophylaxis and human health surveillance, where avian influenza is confirmed or in specific circumstances (see [national guidance for managing the human health risk of avian influenza in poultry and wild birds for further details](#)). UKHSA in England and PHW in Wales will provide advice on this when notified of such incidents.

Scenario 4: larger numbers of dead garden wild birds or non-garden wild bird species at domestic premises, or public, managed estates or other private land where avian influenza is not suspected

- Where there is no suspicion of a disease communicable to humans or animals, and a decision has been taken by the landowner to remove the carcasses, the carcasses of wild animals, other than wild game (including game birds), are exempt from the ABP rules in the UK.
- The determination of whether avian influenza is suspected in any given scenario should be informed by the individual circumstances of the situation and the national picture with regard to avian influenza outbreaks in poultry and other captive birds or findings in wild birds.
- Larger numbers of dead garden wild birds or non-garden wild bird species at domestic premises, dead wild birds on public, managed estates or other private land must not be disposed of by burial or household or municipal waste refuse (as set out in Scenario 1) and a specialist waste contractor may need to be utilised to facilitate removal.
- Individuals involved in collection and disposal are advised where applicable to follow their employer's Control of Substances Hazardous to Health (COSHH) and health and safety procedures for the disposal of carcasses and, as a minimum:
 - wear disposable protective gloves when picking up and handling dead wild birds and placing the dead bird in a plastic bag
 - wear coveralls and disinfectable footwear

- cleanse and disinfect footwear and dispose of or wash coveralls.
- wash hands thoroughly with soap and water when finished.

25.16 Reporting ringed birds

- Any birds found wearing a metal ring with a museum or institute address, where the details on the ring can safely be viewed or photographed, please make a note of the full ring number and address and report the details via [Euring Web Recoveries \(bto.org\)](http://btoweb.org)
- Birds may also be wearing plain or inscribed colour rings and where the metal ring is not present or detectable these colour marks can also be reported via the appropriate page at [Euring Web Recoveries \(bto.org\)](http://btoweb.org)
- Please make a note of both the colour of the ring(s) and the colour and details of any inscription as well as the position of the rings and on which leg where possible.

26 Vaccination

- 26.1 While a cross government and industry task force has been established to explore the potential for use of avian influenza vaccination as a preventive measure in poultry and other captive birds. Defra and Welsh Government have no plans to vaccinate the wild bird population against avian influenza.
- 26.2 The use of avian influenza vaccination in kept and wild birds is controlled by legislation. Defra's and Welsh Governments policy on vaccination is set out in the [Notifiable Avian Disease Control Strategy for Great Britain](#) and Defra's [Avian Influenza \(bird flu\) vaccination - GOV.UK \(www.gov.uk\)](#) guidance.
- 26.3 In England, the vaccination of birds against avian influenza, excluding those kept in [licensed zoos](#) in England subject to authorisation by APHA, is not currently permitted.
- 26.4 Wales has a no-vaccination policy in all birds.
- 26.5 Swift and humane culling of poultry and other captive birds on infected premises coupled with good biosecurity including the separation of poultry and other captive birds from wild birds and disease surveillance remains the most effective means of controlling avian influenza in kept birds and protecting other animals, including preventing spill back of infection in poultry and other captive birds to wild birds. This policy is in line with international standards of best practice for disease control.
- 26.6 While authorised avian influenza vaccines are available in the UK, these vaccines are unlikely to provide full protection for the current strains of HPAI circulating in the UK and continental Europe, or cross-protection to other strains which may circulate in the future. At present, vaccination can help to reduce mortality, but it is likely that some vaccinated birds would still be capable of transmitting avian influenza if they became infected. This would increase the time taken to detect and eradicate the virus bird, and since it is difficult to differentiate infected from vaccinated birds, this leads to issues relating to exporting poultry and their products to other countries.

- 26.7 Defra continue to invest in avian influenza research, and together with Welsh Government supported by APHA continue to monitor the current situation both in Europe and globally, as well as the effectiveness of any disease control measures taken, including vaccine development.
- 26.8 Defra and Welsh Government in conjunction with the Veterinary Medicines Directorate (VMD) will continue to monitor the development and availability of vaccines for their utility in preventing and responding to avian influenza outbreaks as they are put forward for market authorisation by vaccine manufacturers.
- 26.9 Avian influenza vaccination policy is kept under regular review in light of any scientific developments in the availability of effective vaccines. In practice, existing vaccines and those currently under development can only be administered via injection. This precludes any widespread use in wild birds.

27 Compensation

- 27.1 Compensation, as set out in the [Animal Health Act 1981](#), is not payable for wild birds or for consequential losses, including business interruption caused by control measures and other costs associated with avian influenza in wild birds, for example disposal costs.
- 27.2 Compensation paid for birds culled by HM Government for disease control purposes is designed to promote prompt reporting of suspicion of disease and is only payable for healthy kept birds.
- 27.3 The amount of compensation paid for poultry or other captive birds is established by APHA using the relevant valuation rate card or for specialist stock following assessment by a specialist valuer. Further information can be found in the Defra and APHA [Compensation for animals culled to control animal diseases - GOV.UK \(www.gov.uk\)](#) guidance.

28 Enforcement

- 28.1 Avian influenza controls are enforced by Local Authorities Animal Health Function (LAAHF), which is normally situated with the Trading Standards or Environmental Health Service of a local authority. See the [Chartered Institute of Trading Standards postcode tool](#) to find details of how to contact your LAAHF with any reports of non-compliance. Find details of your Local Authority using the [postcode tool](#).
- 28.2 HSE are responsible for licensing and enforcement of work activities involving biological agents, including avian influenza, in relation to [The Specified Animal Pathogens Order 2008 \(as amended\)](#) and [The Specified Animal Pathogens \(Wales\) Order 2008 \(as amended\)](#) (in addition to the [The Specified Animal Pathogens \(Scotland\) Order 2009 \(as amended\)](#)) and [COSHH](#). Uncontrolled releases, injuries or dangerous occurrences resulting from work with hazardous biological agents covered under the requirements of SAPO and COSHH should be reported to HSE's Microbiological and Biotechnology Unit at bioagents@hse.gov.uk (or if you cannot report online contact HSE on 0300 003 1647).
- 28.3 In addition, certain specified animal pathogens also fall under the [Anti-Terrorism, Crime and Security Act 20019 \(ATCSA\)](#) which is the responsibility of the Home Office. Any incident resulting from a breach of security, act of terrorism or deliberate vandalism involving specified animal pathogens is a matter for the police.