Department for Environment Food & Rural Affairs

Llywodraeth Cymru
Welsh Government

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

Date: 26 February 2024

Version: 3.0

We are the Department for Environment, Food and Rural Affairs. We are responsible for improving and protecting the environment, growing the green economy, sustaining thriving rural communities and supporting our world-class food, farming and fishing industries.

We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.

This publication is available at www.gov.uk/defra

Any enquiries regarding this publication should be sent to us at

Exotic and Endemic Disease Control
Department for Environment, Food and Rural Affairs
Seacole Building
2 Marsham Street
Westminster
London
SW1P 4DF

wildlifediseasepolicy@defra.gov.uk

Publication Number: PH 14760

www.gov.uk/defra

Version Control

Date	Version	Section Affected	Reason for Change
31 August 2022	1.0		Initial publication
27 March 2023 (published 30 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.
26 February 2024 (published 18 March 2024)	3.0	All sections (excluding sections 7, 11, 12, 13, and 30)	General typographical and accessibility improvements, key updates include addition of reference to Scottish Wild Bird Highly Pathogenic Avian Influenza Response Plan; addition of reference to the wild bird surveillance outcomes interactive map and data dashboard; addition of information on notification and reporting requirements, and Defra's international reporting obligations; additional details on euthanasia of wild birds for welfare reasons and additional details on enforcement routes

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
DAERA – Department of Agriculture, Environment and Rural Affairs
Defra – Department for Environment, Food and Rural Affairs
DIST – Department for Science, Innovation and Technology
DoWS – Diseases of Wildlife Scheme
EA – Environment Agency
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
FeAST – Feature Activity Sensitivity Tool
FFP – Filtering Face Piece
GB INSS – Great Britain Invasive Non-Native Species Secretariat
GBWHP – Great Britain Wildlife Health Partnership
GSMP – Goose and Swan Monitoring Programme
GWCT – Game & Wildlife Conservation Trust
GWH – Garden Wildlife Health
HA (or H in subtyping nomenclature) – Haemagglutinin
HPAI – High Pathogenicity Avian Influenza
HPAIV – High Pathogenicity 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 Pathogenicity Avian Influenza

LPAIV – Low Pathogenicity Avian Influenza Virus
MOP – Meeting of Parties
MPA – Marine Protected Area
NA (or N in subtyping nomenclature) – Neuraminidase
NE – Natural England
NEG – National Experts Group
NGO – Non Governmental Organisation
NHS – National Health Service
NIEA – Northern Ireland Environment Agency
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
RNA - Ribonucleic acid
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
SNCB – Statutory Nature Conservation Bodies
SoS – Secretary of State
SPA – Special Protected Areas
SRUC – Scotland's Rural College
UNEP – UN Environment Programme
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

Contents

1 Introduction

1.1 This document sets out the policies and approach the 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. In addition to Scottish Government's approach to avian influenza in wild birds in Scotland set out in the Scottish Wild Bird Highly Pathogenic Avian Influenza Response Plan.

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 This document is reviewed at least annually, however updates to the document will only be published when substantive changes are required.

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 waders) 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 has the potential to be zoonotic. The ease at which it can infect mammals, and whether it can spread from mammal to mammal varies significantly between subtypes and strains.

2.3 Influenza A viruses are categorised into subtypes according to the properties of their surface proteins - haemagglutinin (HA) and neuraminidase (NA). There are 16 different HA proteins and 9 different NA 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 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 (for example A/Canada_goose/England/142157/2023_2023-12-28 H5N1).

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, surfaces, or environments, or by ingestion of infectious material. Transmission routes and excretion of live virus following infection may differ depending on the genetics of infecting virus, the dose, and the species infected.

3.2 Wild birds can be infected within Great Britain if infection is already present within birds in the country or infectious material is present in the environment, or they can be infected in another country and bring the virus to Great Britain when they enter during seasonal migration activities.

3.3 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.

3.4 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)

3.5 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.

3.6 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.

3.7 In Great Britain, the risk of avian influenza incursion during summer typically decreases as environmental conditions can reduce virus survival in the environment (warm and dry conditions together with exposure to ultraviolet from sunlight). 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.

3.8 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 birds 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. Further information can be found in the APHA avian influenza outbreak epidemiology reports. Which contain details of the epidemiological investigations undertaken at infected premises where notifiable avian influenza has been confirmed in poultry or other captive birds in Great Britain.

3.11 Whilst transmission 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.

4 Reasons for government intervention

4.1 In England the 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 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. This evidence and advice is considered against the criteria for government intervention set out in 4.1 and 4.2 for England and Wales respectively, 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) 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 and biodiversity. 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), CVOs 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 WOAH.

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 WOAH 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 virus 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 closely monitor both the national and global avian influenza situation as part of this work.

8.2 APHA virologists and epidemiologists 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 WOAH and Food and Agriculture Organization (FAO) international (and the UK's national) reference laboratory for Avian Influenza located at APHA Weybridge.

8.3 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.

8.4 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, APHA, British Trust for Ornithology (BTO), British Association for Shooting and Conservation (BASC), Game & Wildlife Conservation Trust (GWCT), NatureScot, NE, NRW, 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, collaborates where needed with the NatureScot Avian Influenza Task Force for Scotland and gathers information from conservation, land management and wildlife disease experts from a range of organisations to assess what conservation and monitoring actions can be implemented with respect to wild bird populations impacted by avian influenza.

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.

10.4 The group is led and chaired by JNCC and made up of key bird conservation experts form organisations including NE, NRW, RSPB, BTO, National Trust, Wildlife & Countryside Link, WWT, BASC, and GWCT.

10.5 All wild birds species are in scope, however there is a focus on seabirds, waterbirds, and raptors.

10.6 At the time of publication, the group has held two workshops to facilitate information exchange, highlight evidence needs and discuss possible management options. The first of these was in November 2022, co-hosted by JNCC and BTO, and focussed on evidence of impact and future planning (BTO Research Report 752). The second, hosted by JNCC in October 2023, focussed on research needs to support conservation management (report to be published in 2024).

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 Joint Statutory Nature Conservation Bodies Working Group on Avian Influenza

14.1 The Group, coordinated by JNCC, brings together the Chief Scientific Officers (CSO) and Directors from the Statutory Nature Conservation Bodies (SNCBs); NE, NRW, NatureScot, the Northern Ireland Environment Agency (NIEA) and the JNCC. It facilitates sharing of operational practice from each country and enables activities that are more effectively delivered through joint working at the UK level.

15 Notification and Reporting Requirements

15.1 Notification and reporting requirements for avian influenza are set out in England by The Avian Influenza and Influenza of Avian Origin in Mammals (England) (No.2) Order 2006 (as amended) and in Wales by The Avian Influenza and Influenza of Avian Origin in Mammals (Wales) (No.2) Order 2006 (as amended).

15.2 ‘Listed diseases’ are all animal diseases that must be notified or reported to government as a result of statutory provisions.

15.3 ‘Notifiable diseases’ are listed diseases which require notification on suspicion, without confirmatory testing. Notification can be made by anyone.

15.4 ‘Reportable diseases’ are listed diseases which only require notification following detection in diagnostic testing in a laboratory, the field or other setting.

15.5 Avian influenza is a notifiable disease in poultry and other captive birds. Infection with an avian influenza virus (influenza of avian origin) is also a notifiable disease in kept mammals and wild mammals.

15.6 Avian influenza is not a notifiable disease in wild birds. You do not have to report suspicion of avian influenza in live wild birds. In Great Britain, the public are encouraged to report dead wild birds using the online reporting service or by calling the Defra helpline (03459 33 55 77) if they find dead wild birds, see section 19 for further information.

15.7 Whilst not notifiable, avian influenza in wild birds is reportable in England. In England, if you analyse a sample taken from a dead or live wild bird and you detect avian influenza virus or antibodies to avian influenza virus, you must report it to the competent authorities.

15.8 Full details of notification and reporting requirements for avian influenza including how and to whom detections of avian influenza or antibodies to avian influenza virus in wild birds should be reported are set out in in the Avian Influenza and Influenza of Avian Origin: Diagnostic Testing, Controls and Reporting Obligations guidance on gov.uk.

16 Defra's International Reporting Obligations

16.1 Avian influenza is a World Organisation for Animal Health (WOAH) listed disease. As a WOAH member country, Defra must report on behalf of the UK:

- all HPAIVs, irrespective of their subtypes, detected in birds (domestic and wild)
- all LPAIVs, in domestic or captive wild birds, that have proven natural transmission to humans with severe consequences

16.2 The UK may voluntarily report LPAIVs detected in wild birds that have not been associated with natural transmission to humans with severe consequences. The UK may report this to WOAH through the voluntary report on non-WOAH-listed diseases in wildlife.

16.3 The information the UK provides to WOAH is reported through WOAH's World Animal Health Information System (WAHIS). 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 WOAH-listed and new and emerging diseases.

16.4 Further information can be found in Avian Influenza and Influenza of Avian Origin: Diagnostic Testing, Controls and Reporting Obligations guidance on gov.uk.

17 Clinical signs of avian influenza

17.1 The main clinical signs of High Pathogenicity 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

17.2 Clinical signs can vary between species of bird and some species (for example ducks and geese) may show minimal clinical signs.

17.3 Low Pathogenicity Avian Influenza (LPAI) in birds is usually less serious and the birds 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 infection with an LPAIV depends on the type of bird and its general health status and the genetics of the infecting virus.

17.4 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.

18 National Reference Laboratory

18.1 Avian influenza is a high consequence pathogen listed under The Specified Animal Pathogens Order 2008 (as amended) (as applies to England) and The Specified Animal Pathogens (Wales) Order 2008 (as amended) (as applies in Wales) (in addition to The Specified Animal Pathogens (Scotland) Order 2009 (as amended) as applies in Scotland). In addition to being listed on the Advisory Committee on Dangerous Pathogens (ACDP) approved list of biological agents. Whilst avian influenza is not specifically listed under the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH), work with avian influenza also comes under the legal requirements of COSHH in order to protect workers from hazards associated with the viruses.

18.2 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.

18.3 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 Avian Influenza and Influenza of Avian Origin in Mammals: Diagnostic Testing, Controls and Reporting Obligations guidance available on gov.uk.

18.4 The Official Control Regulation (OCR) (EU Reg 2017/625; as amended and retained in UK legislation under SI 2020/1481) sets out a comprehensive and consistent risk-based regime of official controls across the entire agri-food chain. It defines two different categories of laboratories at which official activities and other official activities can be undertaken – National Reference Laboratories (NRL) and Official Laboratories (OL).

- NRLs are the most senior laboratory for a given pathogen. They provide expertise and advice to UK administrations, diagnostics for notifiable diseases, and training and standardisation of the relevant OLs
- OLs undertake other official activities as defined by the OCR. This includes sample analysis as necessary for trade, surveillance, or other testing requirements, under the guidance of an NRL

18.5 The National Reference Laboratory (NRL) for Avian Influenza is:

Animal and Plant Health Agency (APHA)
Weybridge Laboratory
Woodham Lane
Addlestone
KT15 3NB
ENGLAND

18.6 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.

18.7 Further information on designated official laboratories and the UK NRLs can be found on gov.uk. Information on what activities must be undertaken at an NRL or OL can be found in the Avian Influenza and Influenza of Avian Origin in Mammals: Diagnostic Testing, Controls and Reporting Obligations guidance available on gov.uk.

18.8 Both the NRL and IRL operate in a SAPO, ACDP and Schedule 5 licensed facility.

18.9 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 WOAH standards as set out for Avian Influenza in the WOAH 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

18.10 Details of all UKAS validated front line diagnostic assays used by the avian influenza NRL and IRL can be found in the public domain at FluGlobalNet: Laboratory Protocols.

19 Avian influenza wild bird surveillance

19.1 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.

19.2 The public are encouraged to report findings of dead wild birds using the online reporting service or by calling the Defra helpline (03459 33 55 77). The online reporting service 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.

19.3 Reports to the Defra Helpline and online reporting service of found dead wild birds are triaged and not all birds will be collected. The same range of details are captured on reports of dead wild birds made by users self-serving through the online reporting service as those calling the Defra Helpline, where call operatives complete the online form on callers behalf.

19.4 APHA and their contractors then collect some of these birds for testing at the APHA NRL to help understand what 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.

19.5 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.

19.6 A maximum of 5 birds will be collected from a particular location for testing when a mass die-off is reported.

19.7 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 28 for further information).

19.8 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 carcass collection contractor, who will deliver the collected carcases to an official veterinary laboratory for post-mortem inspection and testing at the avian influenza NRL.

19.9 APHA publish a report (updated weekly) on findings of HPAI in wild birds in Great Britain, as collection thresholds can affect the number of dead wild birds that APHA collects and therefore tests.

19.10 Further details on how APHA monitors avian influenza in wild birds in Great Britain can be found in the avian influenza (bird flu) infection in wild birds and wild mammals information on gov.uk.

20 Diseases of Wildlife Scheme

20.1 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.

20.2 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.

20.3 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).

20.4 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 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 a full post-mortem examination is undertaken (provided the carcass is in a suitable condition) to investigate the potential cause of mortality.

20.5 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 with the Cetacean Stranding Investigation Programme (CSIP) for marine mammals. Where appropriate wild mammals submitted to DoWS and CSIP are tested for influenza of avian origin in collaboration with the APHA avian influenza NRL.

20.6 The APHA DoWS work closely with the 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.

20.7 Dead wild birds submitted to APHA where poisoning is suspected are investigated by DoWS in collaboration with WIIS where infection with avian influenza has been negated, in all other instances further investigation is pursued where it is possible to handle carcases and/or samples at appropriate biocontainment levels (SAPO and ACDP, see section 18 for further information).

21 Avian influenza research

21.1 The integration of surveillance activities with research is essential to continue the expansion of our understanding of avian influenza virus biology and epidemiology. For wildlife populations, this includes identifying new host species and viral reservoirs, understanding the potential and scale of carryover effects in previously 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 including zoonotic risk) and help to focus resources where they are likely to be of greatest benefit.

21.2 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.

21.3 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 IRL, and their counterparts in the European Union (EU) and globally through the Quadripartite (WHO, FAO, WOAH, UN Environment Programme (UNEP)) partners and allied projects.

21.4 Knowledge exchange is facilitated through the STAR-IDAZ International Research Consortium, which is run by a partnership including Defra, BBSRC, WOAH, 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.

21.5 Further information on research at APHA can be found on gov.uk together with further information on APHA's avian influenza research portfolio, published outputs and collaborations on FluGlobalNet.

22 Wild bird population monitoring

22.1 Through the APHA wild bird surveillance scheme avian influenza has been detected in over 80 different species of wild birds in Great Britain. While the species of wild bird avian influenza is detected in varies between outbreaks, the most frequent detections are in waterbirds, seabirds, and bird of prey species. However, detection rates are influenced by the numbers and types of wild birds reported by the public.

22.2 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 and interactive data dashboard of findings of avian influenza virus in wild birds.

22.3 Of particular concern is when avian influenza is detected in wild bird species of conservation concern, such as those listed red and amber in the UK Birds of Conservation Concern (BoCC) or on the Great Britain IUCN Red List (Birds of Conservation Concern | BTO - British Trust for Ornithology). These include species that are rare or experiencing serious declines, or for which the UK hosts large proportions of global populations. The additional impacts of HPAI can have serious implications for the conservation of these species.

22.4 The impacts of HPAI on wild bird populations are difficult to assess and quantify as impacts may be direct or indirect, and there is likely to be a lag period between these impacts and their detection through monitoring programmes. Long-term population monitoring, including measures of abundance, breeding success, and survival, and targeted research is crucial to understanding the impacts of avian influenza on England and Wales's wild bird populations.

22.5 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. In addition, periodic full censuses of Britain and Ireland's breeding seabirds is undertaken, coordinated by JNCC for the UK. The results of the latest census (Seabirds Count) were published in 2023 (Seabirds Count | JNCC), providing a critical baseline against which to determine the impacts of HPAI.

22.6 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 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.

22.7 Further information on trends in UK wild bird populations can be found in the National Statistics datasets available on gov.uk (Wild bird populations in the UK, 1970 to 2022 - GOV.UK (www.gov.uk)) and on the BTO's website (BirdTrends | BTO - British Trust for Ornithology)

22.8 Further to these long-term population monitoring schemes, from November 2022 NE and NRW (in collaboration with NIEA) have operated a targeted wild bird mortality reporting system to gather detailed information on wild bird mortality from site managers at key sites for wild birds in England and Wales, using the Epicollect mobile data gathering platform.

22.9 In addition, there are also now options for recording mortality of wild birds through the BTO-run BirdTrack and WeBS systems, which cover the whole of the UK.

22.10 The wild bird mortality data gathered by Epicollect, BirdTrack and WeBS is shared between relevant stakeholders on a regular basis. The data helps to support the APHA's work on monitoring the spread of HPAI and helps to assess the impacts of HPAI and other causes of wild bird mortality on wild bird populations in England and Wales. Understanding these impacts aims to help inform species recovery programmes and measures to mitigate the impacts of the disease.

22.11 Reporting mortality via Epicollect, BirdTrack or WeBS does not replace the reporting of dead wild birds to Defra, either through the online reporting service or via the Defra Helpline (03459 33 55 77), which is essential for disease surveillance purposes, further details on this surveillance can be found in section 19.

22.12 Users of EpiCollect, BirdTrack and WeBS are encouraged to also report to the Defra reporting service, and to include their Defra report reference number as part of their wild bird mortality record in other systems.

23 Support for species recovery

23.1 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.

23.2 England and Wales support internationally significant populations of birds and many of these species are species of conservation concern in the UK (BoCC red or amber-listed).

23.3 Defra and Welsh Government recognise the significant threat HPAI poses to our wild bird populations, particular where populations are of conservation concern. The Avian Influenza Wild Bird Recovery Advisory Group (see section 10 for further information) gathers information from conservation, land management and wildlife disease experts from a range of organisations to assess what conservation and monitoring actions can be implemented with respect to wild birds.

23.4 In addition, the Welsh Wild Bird Avian Influenza Strategic Response Group (see section 13 for further information) 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.

23.5 Internationally, Defra and Welsh Government continue to engage with the OSPAR Heads of Delegation and WOAH to share best practice, mitigation measures.

23.6 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.

23.7 The UK is heavily engaged in AEWA, and the Agreement contributes significantly to many biodiversity and recovery policy objectives.

23.8 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.

23.9 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. Further details can be found in the MOP8 meeting report (8th Session of the Meeting of the Parties to AEWA | AEWA (unep-aewa.org)). The outputs of these efforts are proposed for consideration at AEWA's MOP9 in 2025.

23.10 Defra commissioned NE to assess seabird vulnerabilities in light of the pressures they are facing and propose actions to address them. The resulting report 'English Seabird Conservation and Recovery Pathway' (ESCaRP) provides both Defra and stakeholders with recommendations for actions which, if implemented, could help restore and increase the resilience of seabird populations in England. Delivering on this EIP commitment, Defra published the ESCaRP report on Omnicom Defra Science Search on the 2 February 2024.

23.11 Welsh Government are developing a Seabird Conservation Strategy which will cover 28 species. Underpinning the strategy will be individual species cards, highlighting pressures and threats using best available evidence with a sensitivity assessment using the Feature Activity Sensitivity Tool (FeAST). A vulnerability assessment will be undertaken for each of the seabird species which aims to identify a number of high-level actions to support the conservation of seabirds addressing pressures and threats. Publication of the Strategy is expected in mid-2024.

23.12 In parallel to work to specifically address threat to seabird populations, Defra is looking to improve 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.

23.13 Following a public consultation on the management of sandeel fisheries, Defra has announced that all English waters of the North Sea will be closed to fishing for sandeel from 26 March 2024 to improve the resilience of the marine ecosystem (including seabirds and other marine wildlife). The consultation was developed using scientific advice (Evidence Report) from experts at NE, JNCC and Cefas, and closed on the 30 May 2023.

23.14 Further measures aimed at improving the conservation status and resilience of seabird populations include Defra-funded research on the accidental capture (bycatch) of seabirds in fishing gear, which has highlighted possible impacts on some species in UK waters. In August 2022, the UK Government and Devolved Administrations published the Marine Wildlife Bycatch Mitigation Initiative. This initiative outlines policy objectives and actions to achieve part of the Fisheries Act's ecosystem objective, including improving our understanding of where and how much bycatch occurs and implementing effective mitigation measures to minimise and, where possible, eliminate bycatch.

23.15 In addition, Defra has committed to contribute £156,000 over three years to protect seabird islands from invasive non-native mammalian predators through the 'Biosecurity for England' seabird biosecurity project, managed by the RSPB. This continues the work of the Biosecurity for LIFE project, also managed by RSPB in collaboration with NE, NRW, NatureScot, JNCC, Great Britain Invasive Non-Native Species Secretariat (GB INSS), Defra, Marine Scotland, and the Department of Agriculture, Environment and Rural Affairs of Northern Ireland (DAERA).

23.16 The UK faces a persistent threat from avian influenza associated with the migratory patterns of wild birds and avian influenza outbreaks should be considered an ever-evolving situation. Species population monitoring may reveal species which have been significantly impacted in the short and/or longer term, together with information on the ability of populations to recover from HPAI impacts and the effectiveness of conservation measures. The potential for further incursion and circulation of strains of avian influenza which are not currently circulating in wild birds, and the potential for these strains affecting different wild bird species or affecting populations in different ways than strains currently circulating in wild birds can also not be discounted.

24 Biosecurity in natural settings

24.1 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. Further information on carcass removal is also available in section 28.

24.2 **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.

24.3 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.

24.4 **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 APHA and are available for use at:

- Bird flu (avian influenza): posters for land managers - GOV.UK (www.gov.uk)
- Bird flu (avian influenza): posters for bird keepers - GOV.UK (www.gov.uk)

24.5 Details of the national risk of incursion of avian influenza are published on 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.

24.6 **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.

24.7 Spraying of the environment with disinfectant is considered counter-productive, harmful to the environment and not effective from a disease control perspective.

25 Restrictions on activities

25.1 All disease prevention and control measures are kept under regular review and are based on the latest scientific and ornithological evidence and veterinary advice.

25.2 **Bird ringing**

25.2.1 Ringing activity is undertaken by ornithologists, researchers and volunteers overseen by the BTO on behalf of the UK SNCBs. 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.

25.2.2 The information gathered provide data on the survival and breeding success of bird species that enable evaluation of the drivers of population change.

25.2.3 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.

25.2.4 The BTO HPAI Ringing Framework and BTO information for volunteer field workers set out guidance for bird welfare and biosecurity when ringing birds. All BTO ringers have access to this guidance.

25.2.5 Defra, Welsh Government, NE, NRW, JNCC and APHA 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.

25.2.6 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.

25.2.7 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.

25.2.8 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.

25.2.9 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 BTO HPAI Ringing Framework and information for volunteer field workers guidance on bird welfare and biosecurity.

25.2.10 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.

25.3 Access to sites

25.3.1 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.

25.3.2 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.

25.3.3 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.

25.3.4 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.

25.4 Feeding Wild Birds

25.4.1 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 carry avian influenza and may not show clinical signs. We encourage anyone feeding wild birds to do so responsibly and not feed them in the vicinity or on the same premises as poultry or other captive birds.

25.4.2 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.

25.4.3 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)

25.4.4 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.

25.4.5 Wash your hands with soap and water after feeding wild birds.

25.4.6 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.

25.5 Shooting

25.5.1 Defra and Welsh Government have explored the benefit of introducing wildfowl hunting restrictions to help limit the spread of avian influenza. 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 of avian influenza beyond that of routine movement of infected wild birds.

25.5.2 However, 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 26 for further information).

25.5.3 Details of the evidence which supports these assessments is available on gov.uk as part of the 'Animal diseases: international and UK monitoring' collection. The evidence is regularly reviewed and any decisions on further restrictions are based on the latest scientific and ornithological evidence and veterinary advice.

25.5.4 While the risk assessments undertaken 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.

25.5.5 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.

25.6 Lethal control licences

25.6.1 Some species of wildlife have legal protection. NE issue licences on behalf of Defra in England and NRW issue licences in Wales that allow activities affecting protected species that are otherwise prohibited. Some of these licences allow lethal control.

25.6.2 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.

25.6.3 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.

25.6.4 In addition, in England, Defra also issue three general licences for controlling certain wild birds for different purposes. A range of general licences are also available in Wales. You do not need to apply for a general licence, but you must comply with the licence conditions.

25.7 Game bird release

25.7.1 As defined by the Avian Influenza and Influenza of Avian Origin in Mammals (England) (No. 2) Order 2006 (as amended) and Avian Influenza and Influenza of Avian Origin in Mammals (Wales) (No 2) Order 2006 (as amended) under avian influenza rules in England and Wales respectively, 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.

25.7.2 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.

25.7.3 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)).

25.7.4 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

25.7.5 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 AIPZ including mandatory housing measures is in force.

25.7.6 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.

25.7.7 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. Further information on the rules, related licences and how decisions on these are made can be found in Defra's protected sites and species guidance and general licence GL43: licence to release common pheasants or red-legged partridges on certain European sites or within 500m of their boundary - GOV.UK (www.gov.uk).

25.8 Catching up game birds

25.8.1 Catching up game birds from the wild outside the shooting season for the species is not permitted.

25.8.2 Once caught up, previously wild game birds are classed as poultry. They are subject to all the same avian influenza rules as other poultry. Caught up game birds brought together from more than one location must follow the rules for bird gatherings.

25.8.3 In an AIPZ, wild game birds caught up in the open season must not be moved for at least 21 days from the date of catching up. The 21 day rule applies from the date the last bird was caught up or the date the last bird arrives at the premises where they'll be kept.

25.8.4 Outside of an AIPZ, the 21 day rule should be considered best practice to protect the health and welfare of birds and reduce the risk of avian influenza spreading.

25.8.5 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.

25.8.6 Government have also 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 Department of Agriculture, Environment and Rural Affairs (DAERA) in Northern Ireland and is available on the Game Farmers Association Website.

26 Avian influenza strains of significant public health concern

26.1 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 take precautionary steps to mitigate this risk as much as possible.

26.2 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.

26.3 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.

26.4 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.

26.5 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.

26.6 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

26.7 When zones 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.

26.8 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.

26.9 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. WBMAs must remain in force for at least 30 days from the date of collection of samples from the infected wild bird. WBMAs will only be revoked following the successful completion of any disease control and surveillance activities required within the area.

26.10 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:

26.10.1 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, paragraph 17 Avian Influenza (H5N1 in Wild Birds) (England) Order 2006 (as amended); Wales: Schedule 1, paragraph 17 Avian Influenza (H5N1 in Wild Birds) (Wales) Order 2006 (as amended)).

26.10.2 The release of game birds in a WBCA or WBMA (England: Schedule 1, paragraph 18 Avian Influenza (H5N1 in Wild Birds) (Wales) Order 2006 (as amended); Schedule 1, paragraph 18 Avian Influenza (H5N1 in Wild Birds) (Wales) Order 2006 (as amended)).

26.11 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.

27 Culling for disease control and euthanasia on welfare grounds

27.1 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.

27.2 Defra and Welsh Government's approach to not cull wild birds for disease control purposes is in line with FAO and WOAH's best practice, and our international obligations under CMS, the Ramsar Convention and AEWA.

27.3 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.

27.4 Sick or injured wild birds should not be reported through the online dead wild bird reporting service or to the 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.

27.5 Veterinary practitioners are obliged to provide appropriate first aid and emergency care under the Royal College of Veterinary Surgeons (RCVS) Code, this will not always be immediate.

27.6 Intervention with or without subsequent euthanasia is not always the most appropriate course of action for wild bird welfare. A blanket approach that all wild birds displaying clinical signs indicative of avian influenza are euthanised is not appropriate. Where wild birds are injured and show no clinical signs of avian influenza then a normal approach to first aid and emergency care in British wildlife should be taken.

27.7 Further information for veterinary practitioners on the assessment of sick wild birds where clinical signs indicative of infection with an avian influenza virus 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.

27.8 Wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA). The level of protection may vary according to the species and time of year. Under chapter 69, part 1, section 1(1)(a) of the WCA it is an offence to kill, injure or take from the wild any wild bird. However, in some circumstances, wild birds may be killed for disease-related purposes by appropriately authorised person (as defined by the WCA). Certain methods of killing are specifically prohibited under the WCA.

27.9 If sick or injured wildlife are taken under human control, they become protected by the Animal Welfare Act 2006 (as amended). This includes then a duty to protect them from pain, suffering, injury, and disease during this time. In some cases, humane killing using an appropriate method is necessary to avoid further suffering.

27.10 Any suspected breaches of animal welfare legislation in relation to wild animals should be taken very seriously and reported to the police or relevant local authority.

28 Removal and disposal of dead wild birds

28.1 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.

28.2 Members of the public are encouraged to report findings of dead wild birds using the online reporting service or by calling the Defra helpline (03459 33 55 77) (further information on this surveillance programme can be found in section 19).

28.3 Where dead birds are not required for avian influenza surveillance purposes, they may be eligible for other surveillance schemes such as DoWS, GWH or WIIS (further information on these schemes can be found in section 20). However, there are many reasons why birds die, and further investigation is not required or warranted in many circumstances.

28.4 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.

28.5 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 based on an assessment of the location and species of bird present.

28.6 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) guidance and Welsh Government Animal by-products: guidance | GOV.WALES for further information.

28.7 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 EA, NE, NRW and other relevant agencies may also be required dependant on the situation.

28.8 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 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 be infected with HPAI H5N1 are removed in the event of mass mortality in Great Britain compared to leaving carcasses in situ.

28.9 The outcome of the EPIC concluded assessment concluded that:

28.9.1 In areas of high bird density (for example, 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.

28.9.2 In areas of low bird density (for example, 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 the environment 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.

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

28.11 EPIC assessment outcomes correspond with emerging evidence from seabird colonies in Continental Europe that carcass removal may be effective in reducing the incidence of mortality linked to HPAI infection in some species (Knief et al 2024).

28.12 The decision on removal of carcasses should be made by land managers on a case-by-case basis, factoring in biosecurity measures to prevent spread of the virus by those undertaking collection, wild bird welfare/disturbance implications of collection, site accessibility, ability to dispose of carcasses in line with ABP disposal rules and the health protection of those involved.

28.13 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.

28.14 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.

28.15 Where dead birds are not required for avian influenza surveillance purposes (see section 18 for further information) and 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) and for Wales at Report and dispose of dead birds | GOV.WALES.

28.16 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 songbirds (such as sparrows, tits, blackbirds, finches, starlings and robins), pigeons and doves) 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 bird species typically found in residential gardens (including songbirds (such as sparrows, tits, blackbirds, finches, starlings, and robins), pigeons and doves). 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 to 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

- 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

Further information on the use of disinfectants can be found on gov.uk in the Defra-approved disinfectants guidance.

28.17 **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)

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)

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.

29 Vaccination

29.1 The cross government and industry avian influenza vaccination task force, established in February 2023 explores options and develops recommendations for the use of vaccination to prevent the spread of avian influenza in the UK. Focus of the task force is on 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.

29.2 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.

29.3 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.

29.4 Wales has a no-vaccination policy in all birds.

29.5 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.

29.6 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, 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.

29.7 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.

29.8 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.

29.9 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.

30 Compensation

30.1 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.

30.2 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.

30.3 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.

31 Enforcement

31.1 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. Find details of your Local Authority using the postcode tool. The Chartered Institute of Trading Standards postcode tool can also be used to find details of how to contact the relevant LAAHF with any reports of non-compliance.

31.2 HSE are responsible for licensing and enforcement of laboratory 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 deliberate 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).

31.3 Avian influenzas in scope of SAPO include those which are either uncharacterised, have an intravenous pathogenicity index in 6-week-old chickens of greater than 1.2 or are an H5 or H7 subtype for which nucleotide sequencing has demonstrated multiple basic amino acids at the cleavage site of haemagglutinin. Further information on SAPO and its enforcement can be found in the avian influenza and influenza of avian origin: diagnostic testing, controls and reporting obligations guidance available on gov.uk.

31.4 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.

31.5 Failure to report suspicion or detection of avian influenza should be reported to the APHA Intelligence Unit at intelunit@apha.gov.uk. This includes a failure to report:

- suspicion or detection of avian influenza virus or antibodies to avian influenza virus in poultry or other captive birds anywhere in Great Britain
- suspicion or detection of influenza of avian origin in kept or wild mammals anywhere in Great Britain
- detection of avian influenza in wild birds from England

Further information on reporting requirements can be found in the Avian influenza and influenza of avian origin: diagnostic testing, controls and reporting obligations guidance available on gov.uk.

31.6 APHA may refer reports to the Defra Investigation Service for further investigation, or to the Royal College of Veterinary Surgeons if they are relevant to professional standards of veterinary professionals. Read more information in Defra's enforcement policy statement.