Notifiable Epizootic Avian Disease Control Strategy

for Northern Ireland

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Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

An Roinn Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe

Depairtment o' Fairmin, Environment an' Kintra Matthers

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1. Foreword and introduction

1.1 Purpose and structure of document

This document describes how an outbreak of notifiable epizootic avian disease (NEAD) in Northern Ireland (NI) would be managed and sets out the measures applied in such an eventuality. It also describes the measures and wider framework in place to prevent and limit an incursion of NEAD.

It is the aim of this strategy that all affected during an outbreak of NEAD will be able to be better prepared to respond quickly and effectively to controls and limit the outbreak, thereby mitigating the likely impact of the control measures described.

A glossary of terms and acronyms used in the strategy is contained in Annex 1.

1.2 Approach

NI is recognised as a separate epidemiological unit from the rest of the United Kingdom (UK) and would liaise with the Republic of Ireland (RoI) during an outbreak of NEAD in either or both jurisdictions. It is recognised by the Department of Agriculture, Environment and Rural Affairs (DAERA) and the Department of Agriculture, Food and Marine (DAFM) in the RoI that sustained co-operation between both administrations would be essential to reduce the further spread of NEAD.

The strategy reflects various pieces of legislation which set out the control measures to be implemented when NEAD is suspected or confirmed in NI (see Annex 2).

1.3 Strategic fit

This control strategy is consistent with the following:

- Compliance with EU law as a result of the EU Withdrawal Agreement and NI Protocol and international obligations to trading partners.
- Ongoing obligations for the welfare of animals.
- DAERA's epizootic disease contingency plans

1.4 Disease strategic control framework

1.4.1 Disease management principles

Managing NEAD primarily involves managing risk. Epizootic diseases are defined as those not present or endemic in the country and therefore risk management in this case consists of:

- Reducing the likelihood of outbreaks of NEAD by putting in place appropriate preventive measures.
- Ensuring such diseases are rapidly detected if an incursion does occur.
- Taking preparatory measures to reduce the impact of such an incursion.

Whilst the majority of the elements in this control strategy will only come into force if NEAD is detected, readiness to operate these measures and minimise their impacts needs to be put in place in advance. This document is also therefore aimed at assisting all keepers of poultry or other captive birds, in their contingency planning and preparation for an outbreak of NEAD.

1.4.2 Disease control objective

If NEAD is detected within NI, the key objective is to ensure a swift and effective response to the incident, rapidly assessing and closing down all risk pathways to poultry and other captive birds and resolving uncertainties as rapidly as possible. DAERA's aim is to prevent the spread of infection to domestic poultry and other captive birds through proportionate and evidence-based control measures which also:

- Ensure maximum protection of human safety and in particular worker safety in the event of an outbreak in poultry or other captive birds.
- Provide due protection for the welfare of poultry or other captive birds.
- Minimise the impact on international trade, the economy and the sustainability of the poultry industry/other captive bird sector.

In achieving this aim, and in accordance with the Department's Contingency Plans for Epizootic Diseases, the disease control strategy aims first and foremost to restore NI's disease free status as quickly as possible. In doing so, DAERA seeks to select control strategies which:

- Protect public health.
- Minimise the number of animals which need to be culled either to control the disease or on welfare grounds.

- Cause the least possible disruption to the food and farming and tourism industries, to visitors to the countryside, and to rural communities in the wider economy.
- Minimise damage to the natural environment.
- Minimise the burden on the taxpayers and the public.

1.4.3 Approach to disease control

Key principles include:

- Early detection and reporting of suspicion of NEAD to limit the extent to which disease can spread before controls are brought into force, thereby reducing the extent of the outbreak.
- Containing disease at premises where it is detected and eradicating it swiftly and effectively.
- Limiting the risk of any further spread of disease from premises connected with the infected premises (IP).
- Limiting the risk of any further spread of disease to other premises in the vicinity of the IP.
- Undertaking risk assessments based on epidemiological assessment before easing restrictions.
- Continuing heightened surveillance before easing restrictions.
- Complying with legislative obligations.

2. Definitions of Notifiable Epizootic Avian Disease

There are two NEADs - avian influenza (AI) and Newcastle disease (ND). A notifiable disease is one that must be notified by law if it is suspected or diagnosed.

Anyone in possession of any bird or bird carcase (excluding a wild bird or wild bird carcase) which they suspect may be infected with NEAD must immediately notify their local divisional veterinary office (DVO). In addition, any person who has in their possession a mammal or mammal carcase which they suspect may be infected with influenza virus of avian origin (see Section 12) must inform their local DVO.

At this stage, an important clarification must be made. Only certain AI viruses and avian paramyxoviruses (avian paramyxovirus type 1 (APMV-1) virus causes ND) require DAERA intervention (definitions for AI and ND are provided in the *Glossary* at Annex 1). These can only be distinguished from viruses not requiring DAERA intervention (i.e., those that fall outside these definitions) through laboratory testing. Therefore, any clinical signs or laboratory test results that lead to suspicion of infection with NEAD virus must be immediately notified to the local DVO.

2.1 Avian influenza

2.1.1 Avian influenza in poultry and other captive birds

There are many strains of AI viruses, which vary in their ability to cause disease. AI viruses are categorised according to this ability to cause severe disease (pathogenicity) in avian species as either highly pathogenic or low pathogenic. They are also categorised according to the properties of their haemagglutinin (H1-H16) and neuraminidase (N1-N9). To date, only AI viruses of subtypes H5 and H7 have caused highly pathogenic infection in birds. Based on this and for the purposes of the NEAD control measures outlined in this document, AI is defined as:

- An infection of poultry or other captive birds with any highly pathogenic influenza A virus (see Annex 1 - *Glossary: Highly pathogenic avian influenza -HPAI*).
- An infection of poultry or other captive birds with influenza A virus of H5 or H7 subtype that is not classified as highly pathogenic (see Annex 1 - *Glossary: Low pathogenic avian influenza - LPAI*).

Highly pathogenic avian influenza (HPAI) can rapidly cause severe disease, usually with high mortality, in chickens and turkeys (and other “galliform” poultry) but may not cause obvious disease in waterfowl. Infection in galliform poultry is associated with severe systemic disease, possibly sudden death and signs including quietness, depression, drops in feed/water intake and

in egg production, followed by respiratory signs (such as sneezing, coughing, ocular and nasal discharge, and sinusitis) or nervous signs (such as incoordination, twisted necks and drooping wings). There may also be diarrhoea, swelling of the head and blue discolouration of the comb and wattles.

Low pathogenic avian influenza (LPAI) does not always cause obvious disease in birds but this can be aggravated by secondary infections or stressors. Infection may be associated with significant drops in feed/water intake and in egg production in laying birds. There may be respiratory signs such as sneezing, coughing, ocular and nasal discharge, and sinusitis.

AI is predominantly spread by movement of infected birds or contact with respiratory secretions and, in particular faeces, either directly or through contaminated objects.

2.1.2 Avian influenza in wild birds

AI viruses are known to circulate in the global wildfowl population. These have traditionally been LPAI but there is increasing circulation of HPAI in the migratory wild bird populations.

2.1.3 Avian influenza in humans and other mammals

AI is a disease of birds caused by influenza viruses closely related to human influenza viruses. Transmission to humans in close contact with poultry or other captive birds occurs rarely and only with some strains of AI viruses. In rare cases, some strains have led to severe disease and deaths in people where infection has resulted from close contact with infected birds. To date, such strains have been associated with limited human to human transmission. There is evidence that AI viruses can exchange genetic material with human influenza viruses in humans and result in the emergence of new viruses that may be capable of being spread easily between people. The global human population may have little or no immunity to a new influenza virus that significantly differs from recent or existing strains of human influenza viruses. Therefore, for any outbreak of AI (or viruses that include a reassortment of genetic material including AI virus) workers and veterinarians in close contact with infected birds must be appropriately protected (see Section 7.3). More information is available from the World Health Organisation.

In addition to human infection, AI viruses can also infect other species of mammals (see Section 12).

(For further information on AI, see: World Organization for Animal Health; European Commission; DEFRA).

2.2 Newcastle disease

2.2.1 Newcastle disease in poultry and other captive birds

For the purposes of the NEAD control measures outlined in this document, ND is defined as: An infection of poultry or other captive birds caused by any avian strain of the paramyxovirus 1 fulfilling certain criteria for virulence (see Annex 1 - *Glossary: ND*).

Newcastle Disease can produce variable clinical signs in affected birds, but mortality can be high and young birds are particularly susceptible. The disease can present as a very acute form ranging to mild or sub-clinical disease. The signs depend on which body system the strain of the virus predominantly affects (the respiratory, digestive or nervous system and can have a sudden onset and high mortality. Signs include quietness, depression, drops in feed/water intake and in egg production in laying birds with a high proportion of eggs laid with abnormal (soft) shells. There also may be respiratory distress (with gaping, coughing, sneezing, gurgling and rattling), yellowish green diarrhoea or nervous signs (such as tremors, incoordination, twisted necks and drooping wings and paralysis).

APMV-1 (AOAV-1) viruses are known to circulate in wild bird populations. Usually these are viruses of low virulence. However, there have been reports of probable spread of virulent strains by wild birds. There is also evidence that low virulence viruses may rarely mutate to high virulence strains in poultry.

(For further information on ND, see: World Organisation for Animal Health; European Commission; DEFRA).

2.2.2 Avian Avulavirus AAvV - type 1 (formerly Pigeon paramyxovirus type 1)

A pigeon-adapted strain of APMV-1 also occurs, also known as pigeon avian avulavirus type 1 (AAvV-1). In pigeons infected with this virus, clinical signs include diarrhoea, reluctance to move or take exercise, depression, anorexia, quietness and nervous signs. (See Section 10.1.3 and 10.2.4 on control measures specific to outbreaks of AAvV-1 in pigeons).

Infections are usually restricted to pigeon lofts. However, occasionally virulent strains of this virus strain can infect poultry causing ND. In such events, the control measures detailed in this strategy in relation to ND apply.

2.3 Laboratory Service

The laboratory for both AI and ND is the Agri-Food and Biosciences Institute (AFBI). AFBI provide their animal disease diagnostic service at AFBI Stormont, Stoney Road, Belfast, BT4 3SD Tel: 028 905 20011. Fax: 028 905 25773. E-mail: info@afbini.gov.uk

The APHA National Reference Laboratory in Weybridge, Surrey will carry out confirmation tests to establish the virus sub-type. Confirmation is also carried out by the EU laboratory ISVF.

3. Maintaining disease freedom

Where appropriate, or required by legislation, countermeasures are put into place which aim to reduce the risk of the introduction of NEAD to NI.

3.1 Vigilance and prompt reporting

Early detection of NEAD in poultry and other captive birds is key to lessening the extent of disease spread. Keepers of poultry and other captive birds must remain vigilant for clinical signs of NEAD in their birds and must promptly notify suspect cases to their local DVO.

3.2 Biosecurity

Good biosecurity is a vital part of keeping disease away from poultry and other captive birds. All keepers of poultry need to maintain high biosecurity standards for protection from disease (not just those that are notifiable). Keepers should also prepare a contingency plan and consider arrangements in the event that they are within a movement control zone during an outbreak of NEAD so that they are prepared for any increase in the risk of disease and the effects of movement restrictions. Keepers of other captive birds (especially of larger collections - e.g., zoos) should also consider biosecurity and contingency planning arrangements.

This risk of disease is always present, and keepers are strongly recommended to plan for the impact of a disease outbreak:

- Directly - e.g., if their premises were to be infected (see Section 7) or in a disease control zone (see Sections 9 and 13).
- Indirectly - e.g., if usual trade/movement outlets were affected.

Keepers are strongly recommended to limit the movement of poultry, people, vehicles and equipment between farms and keep records of the types of movements that take place to assist DAERA in carrying out tracings (see Section 3.7 and 8)

DAERA makes biosecurity advice available to keepers of poultry and other captive birds on its website: Biosecurity and preventing welfare impacts in poultry and captive birds | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

The Department has introduced a text alert service for all bird keepers to receive immediate notifications of disease outbreaks or other important disease information. This will enable keepers to take action to protect their flock at the earliest opportunity. Further details, including how to sign up for this text alert service can be found at https://www.daera-ni.gov.uk/ai

3.3 Surveillance

Surveillance for NEAD is carried out in accordance with legislative requirements.

3.3.1 Avian influenza surveillance - poultry

DAERA carries out active surveillance through the survey for avian influenza of subtypes H5 and H7 in domestic poultry. The aim of the survey is to identify the circulation of AI viruses in poultry (in particular, waterfowl poultry species) before they become widespread in the poultry population. As such, control measures can be taken to mitigate for mutation into a HPAI virus. Samples are taken from a random selection of premises and are subject to testing for previous or current AI antibodies.

3.3.2 Avian influenza surveillance - wild birds

NI is required to contribute to the knowledge of the threats posed by wild birds in relation to AI. The aim of surveillance is to ensure the timely detection of HPAI by investigating increased incidence of morbidity and mortality in wild birds, particular in selected target species and areas.

As such, surveillance is carried out through the Wild Bird Survey for Avian Influenza Viruses. Section 13 describes the measures put in place if HPAI is detected in a wild bird or wild bird carcase as a result of such surveillance.

3.4 Imports

In order to maintain NI's animal and public health status, various measures are put in place to ensure that imported animals and products of animal origin do not present unacceptable risks to the health of other animals or to people. Imports of live animals and products of animal origin are controlled to prevent the import of disease into NI. Further information on imports can be found on DAERA's website at Introduction to importing animals and animal products | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

3.4.1 Imports to Northern Ireland from the European Union

If an EU MS experiences an outbreak of NEAD, legislation and trade rules set out the measures that must be adopted by that MS to prevent the spread of the disease. If the situation demands it, the European Commission (EC) will impose additional safeguard measures.

Intra-community trade in live poultry and hatching eggs must be accompanied by veterinary certificates (ITAHCs) indicating the poultry or hatching eggs do not come from flocks or premises that are located within areas under restrictions for outbreaks of NEAD. The import of table eggs from such areas may be permitted if such products are handled and treated in accordance with European legislation.

3.4.2 Imports to Northern Ireland from outside the European Union

Imports are only permitted from a restricted list of Third Countries which meet EU standards for the control of NEAD.

Poultry and poultry eggs imported into NI must enter at designated Border Control Posts, where they are subject to veterinary inspections. All consignments are subject to documentary and identity checks to ensure that the conditions of import, set out by legislation, are met. All imported birds must undergo a period of quarantine. From the time of import, live poultry, or eggs once hatched, must be isolated for at least 6 weeks at the premises of destination to ensure they are not carrying any disease.

Separate rules are in place governing the import of poultry meat products, poultry by products captive birds and pet birds to NI from the EU.

3.5 Preventive vaccination

Preventive vaccination is recognised as a potential disease control measure. However, the approach adopted differs according to the disease.

3.5.1 Avian Influenza

Preventive vaccination of poultry or other captive birds as a long-term measure where certain areas, type of premises or categories of poultry or other captive birds are deemed to be exposed to the risk of AI can be approved in certain circumstances.

NI is not currently exposed to such a risk of AI and preventive vaccination of poultry against AI is not recommended as a means to protect NI against outbreaks of LPAI and HPAI.

There are several disadvantages relating to currently available vaccines:

- Although currently available vaccines are able to reduce mortality, it is likely that some vaccinated birds would still be capable of transmitting AI virus if they became infected, increasing the time taken to detect and eradicate this virus.
- Influenza viruses can mutate rapidly, which could render a vaccine less useful. This is relevant when trying to get a good match between an outbreak virus and a vaccine as the virus type that may cause an outbreak cannot be predicted with any certainty.
- The vaccines have serious practical limitations in that they need to be delivered by individually injecting each bird. It can take up to 3 weeks for the birds to deliver optimum immunity and some poultry require 2 doses, with a 4-6-week interval between these.

- There is no proven efficacy of currently available vaccines in species such as ducks, geese and game birds.
- It is difficult to differentiate infected from vaccinated birds.
- There are welfare implications for birds through increased handling, especially when speed is necessary.
- Vaccination may induce a false sense of security, resulting in a relaxation of biosecurity and vigilance.
- There will be a risk to workers from the increased handling of birds.

This policy may be subject to review if, in the future, there are major changes to the structure of the poultry industry in NI, and in the epidemiology of AI.

3.5.2 Avian influenza - zoo birds

Present policy states that vaccination of zoo birds is permitted in NI. To date no zoo birds have been vaccinated.

3.5.3 Importation of AI vaccine

Should vaccination take place in NI, then an import licence is needed from the Veterinary

Medicines Directorate. This would be arranged by DAERA's Veterinary Service and Veterinary Medicine section.

3.5.4 Newcastle disease

Vaccines for ND with marketing authorisations are commercially available and bird owners can choose whether or not to vaccinate their birds. Vaccination is common in most, if not all, commercial layers, layer breeders and broiler breeders. It is also common in most turkey breeders and some commercial turkeys and broilers. It is a legal requirement to keep a record of all medicines (including vaccines) administered to food-producing animals (see Health and Safety Executive and Veterinary Medicine Directorate guidance). Criteria for live vaccines for ND are set out in legislation (see Annex 2).

3.5.5 Avian Avulavirus -1 AAvV-1 (formerly Pigeon Paramyxovirus)

Legislation requires that pigeons must be vaccinated against AAvV-1 if they are to be raced or shown. It is the responsibility of the organiser of a race or show to ensure that pigeons entered have been vaccinated.

3.6 Bird Register

It is a legal requirement (Regulation 5 The Avian Influenza (Preventive Measures) Regulations (Northern Ireland) 2007 (legislation.gov.uk) that all birds, excluding those kept in their owners' home, must be registered on the DAERA Bird Register. The aim of the Bird Register is to provide information regarding the location and density of poultry populations in NI. In a disease outbreak, it provides essential information which assists DAERA in the delivery of disease control measures. Upon confirmation of disease, the register allows the initial location of premises containing poultry in the infected area to be identified. Identification, registration and movement of birds | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

3.7 Movement records

Under Article 11(1) of The Diseases of Poultry Order (Northern Ireland) 1995, owners/keepers of flocks of over 250 birds (other than racing pigeons) are required to keep records of birds or eggs leaving or entering their premises. Similarly, under Article 11(2) of Diseases of Poultry Order (Northern Ireland) 1995 any person involved in the transport or marketing of any birds or eggs must keep a record of all poultry or eggs they transport or market. These records must be kept for 12 months and are vital in cases where NEAD is suspected or confirmed and contact premises need to be identified.

In addition to legal requirements, all keepers of poultry or other captive birds are encouraged to consider and, where appropriate, implement record keeping measures that would assist DAERA in carrying out tracings (see Section 8) in the event of an outbreak of NEAD.

Further advice on biosecurity and preventing welfare impacts in poultry and captive birds can be found here.

3.8 Bird gatherings

Under European legislation, bird gatherings are prohibited unless authorised in that MS (including NI under the Protocol on Ireland/Northern Ireland) by a veterinary risk assessment (VRA). For the current position on bird gatherings in NI, please refer to the DAERA website: www.daera-ni.gov.uk/articles/avian-influenza-ai#toc-6.

3.9 Raising stakeholder awareness

Advice on maintaining disease free flocks is made available to poultry keepers on DAERA's websites, including the following:

- PREPARING FOR AVIAN INFLUENZA - SEPARATING FLOCKS FROM WILD BIRDS (qub.ac.uk)
- Biosecurity and preventing welfasre impacts in poultry and captive birds (qub.ac.uk)

Keepers of poultry or other captive birds are encouraged to consult their Private Veterinary Practitioner (PVP) as soon as possible if they are concerned about their flock's health, biosecurity practices or disease risk.

4. Heightened risk of incursions of notifiable epizootic avian disease into Northern Ireland

4.1 International surveillance and monitoring

With regards to outbreaks of NEAD in other countries, DEFRA monitors the international disease situation and provides this information to DAERA. Preliminary outbreak assessments may also be provided by DEFRA upon notification of a disease outbreak from the EU or World Organisation for Animal Health (WOAH). For outbreaks of NEAD in an EU MS, a country bordering the EU or a trading partner, more in-depth qualitative risk assessments may be carried out by DEFRA and provided to DAERA. These are designed to give a balanced account of the threat of the disease incidence to UK at present and in the future. Both assessments and if necessary, a VRA carried out by VSAHG are used to inform DAERA's decision on the risk level of AI or ND in NI and inform the consideration of preventive controls.

Any changes to the level of risk of the introduction of NEAD into NI must be underpinned by risk assessment as set out above. Stakeholders will be updated on such changes.

4.2 Prevention zone

Following a VRA, it may be considered necessary to assess whether any preventive action is required to reduce the risk of transmission of NEAD from wild birds to poultry or other captive birds.

If considered necessary, measures can be applied for AI through a prevention zone, including:

- Provision of bedding, feed and water which wild birds have no access for poultry and other captive birds.
- Enhanced biosecurity at premises where poultry or other captive birds are kept.
- Banning or limiting of bird gatherings.
- Banning or limiting of the use of live decoys during bird hunting.
- Housing of poultry and other captive birds, or their separation from wild birds (may be applied to certain categories of bird's dependent on risk)[1].

Any such decision would be based on the evidence and risk assessments available at that time and expert ornithological advice and would be discussed in advance with the Avian Disease Core Group. This would be supplemented by:

- Analysis of the costs associated with imposing prevention zone (e.g. industry response, production and welfare costs) compared to the benefits in terms of reduced risk of disease spread;

- Assessment of the impacts a prevention zone may have on consumer confidence (e.g., if housing were required in such a zone).

5. Suspicion of notifiable epizootic avian disease in Northern Ireland

5.1 General principles

DAERA's surveillance or the reporting of clinical signs consistent with those of NEAD in poultry or other captive birds may lead to suspicion being raised regarding the presence of NEAD. Veterinary enquiries are triggered, with laboratory testing of samples/swabs being carried out if disease cannot be ruled out on clinical grounds. Measures may also be imposed on and in the area surrounding suspect premises, depending upon the level of suspicion and legislative powers. The strategic aim of these measures is to:

- Establish whether NEAD is present.

- Establish the origin and any potential routes of spread if disease is confirmed.

- To put in place appropriate measures to prevent disease spread.

5.2 Notification to DAERA

Anyone in possession of any bird or bird carcase (excluding a wild bird or wild bird carcase) which they suspect may be infected with NEAD must immediately notify the Department. Avenues of notification include the following:

- Directly by the owner/person responsible for the birds in question.

- By a PVP called by the owner/person responsible for the birds in question to assess or treat these birds (see below).

- By an inspector attending the premises on other business (e.g. animal welfare grounds).

- As a result of active DAERA surveillance (e.g., the AI Poultry Survey).

- By VSAHG staff at a slaughterhouse suspecting disease as a result of ante/post-mortem inspections (NB the following section (and Section 5.3) does not apply if this is the case - see Section 5.6 specific to slaughterhouses).

Upon notification, the Epizootic Divisional Veterinary Officer (DVO) will decide on the level of suspicion. The Epizootic DVO will initiate an investigation via the local DVO and/or provide other instructions. The Epizootic DVO may be able to make an initial assessment of the level of suspicion at this stage; this assessment will be subject to change as more information becomes

available. DAERA also operates several out-of-hours services to provide assistance, and information, out of normal working hours, to those involved in an Epizootic Disease response. The services are directed at different groups including DAERA staff, PVP's, the Police Service of Northern Ireland (PSNI) and indeed the general public. An Epizootic Team Member (ETM) is on call out of hours 365 days a year, including weekends, bank holidays and every week-night to offer advice and assistance when epizootic disease is suspected.

5.3 Actions at suspect premises

5.3.1 Suspect premises

Upon arrival at the premises, the vet will examine the birds and other records as necessary (e.g. production records) and discuss the case with the Epizootic DVO and Field DVO. As part of the initial investigations, the ETM may attend suspect premises to examine suspect animals. If disease can be ruled out on clinical grounds, the vet will lift any restrictions placed on the premises. If disease cannot be ruled out on clinical grounds, the premises will be declared a suspect premises. Blood samples, carcases and swabs will be taken from an appropriate selection of birds and submitted for testing to AFBI. The following measures will also apply at the premises.

Key measures at suspect premises:

- Records - the vet will examine production records for poultry and other captive birds kept at the premises. These must include the number (or approximate number) of birds within each species which are alive, have died, are ill, likely to be infected or are hatched. Records must also be kept in relation to domestic mammals at the premises.
- Housing or isolation - poultry and other captive birds must be kept in their buildings or kept isolated as far as practicable from other poultry and wild birds.
- Movements of poultry and other captive birds to and from the premises - these will be prohibited and are highly unlikely to be licensed at this stage.
- Movements of other things liable to transmit disease assessed as lower risk movements may be licensed subject to certain conditions (e.g. people off the premises).
- Disinfection at entrances and exits - a means of cleansing and disinfection must be provided at the entrances and exits of the premises and of buildings there which house poultry or other captive birds (this may not be applied where NEAD is suspected in other captive birds at non-commercial premises - e.g., where the premises is a domestic dwelling).
- Warning signs - warning signs must be erected at appropriate places at the premises.

5.3.2 Veterinary inquiry

An epidemiological investigation will begin to establish, as far as possible:

- How long the disease may have been present on the premises.
- The likely source of infection.
- Whether the disease is a potential primary case or whether it originated from another premises.
- Whether any other premises may have been exposed to the disease as a result of the suspect case.
- The extent to which the disease may have been carried to or from the suspect premises.

This will inform any initial further investigations to be carried out (e.g., if live birds were moved to/ from the premises during the incubation period).

5.4 Diagnostic investigation at the Agri-Food and Biosciences Institute

AFBI at Stoney Road, Belfast, provide the diagnostic testing service for AI. Confirmation is of the virus sub-type is carried out by the National Reference Laboratory in Weybridge, Surrey and AIEV.

Upon arrival at AFBI, samples will be tested for both AI and ND and series of pre-agreed tests will be carried out, with results reported by AFBI to DAERA VS.

Initial results, that suggest that one or both of those viruses is present, can be expected within 12 hours of the tests beginning. However, confirmatory tests do take longer - e.g., for the full characterisation of the virus or pathogenicity of any AI or ND virus.

Final negative results that inform DAERA VS decision regarding the lifting of restrictions in Section 5.3.1 are likely to be available six days following the submission of samples.

5.5 “High” level of suspicion

If considered necessary by DAERA to control the disease, legislation provides for more stringent measures to be implemented at suspect premises. The killing of poultry or captive birds can be carried out, with carcases and eggs having to be disposed of tracings made and initial cleansing and disinfection (see Section 7.8) of premises carried out by DAERA.

5.6 Suspicion at slaughterhouses

Legislation sets out different rules if poultry or poultry carcases at a slaughterhouse are suspected of being infected with NEAD. Notification must be made in the usual way to the Department. A further investigation will then be necessary, and the following legal requirements apply:

- No other poultry must be brought into the slaughterhouse (subject to consideration of the welfare of poultry at or enroute to the slaughterhouse).

- Things liable to transmit disease (e.g., carcases, poultry meat, and waste), people and vehicles will not be allowed to leave the slaughterhouse until licensed by DAERA.

- Any suspect live poultry, live poultry from the same premises as the suspect poultry and any poultry they have had contact with must be slaughtered according to the instructions of a VO.

- If any of those poultry have already been slaughtered, the carcases and any carcases they have been in contact with must be isolated: the operator must ensure that they do not come into contact with other poultry or carcases.

Simultaneously, an investigation at the premises of origin will be carried out as described in Section 5.3.

On arrival at the slaughterhouse the vet will examine the poultry or poultry carcases. If the vet cannot rule out NEAD on clinical grounds, a notice is served on the operator setting out the restrictions that apply. After inspection and the taking of samples, the following will be required to be slaughtered separately from other poultry:

- All suspect poultry.

- All poultry from the same premises as the suspect poultry.

- Any poultry that have had contact with the suspect poultry.

Carcases from these poultry must be stored separately from carcases of others. Samples will be taken to test whether NEAD is present in the slaughterhouse or not. If the occupier completes cleansing and disinfecting in accordance with instructions from the vet (i.e., of areas potentially contaminated by infected poultry or poultry carcases) during this time, live poultry may be allowed to enter the slaughterhouse again for slaughter.

Laboratory testing as described in Section 5.4 will be carried out. If the test results are negative, the vet will inform the occupier in writing that the measures above cease to apply. Throughout

the investigation, the slaughterhouse operator remains responsible for maintaining the carcases in line with food hygiene regulations. Where disease is negated and restrictions are lifted, and subject to compliance with food hygiene regulations and official checks throughout the period of restrictions, poultry meat may enter the food chain.

For confirmation of NEAD in a slaughterhouse, see Section 7.11.

5.7 Area restrictions around the suspect premises

Powers exist for additional measures to be implemented in the area around suspect premises if they are deemed necessary to minimise the risk of the spread of NEAD from a suspect premises.

5.8 Confirmation of influenza A virus or APMV-1 infections in poultry or other captive birds outside the definition of notifiable epizootic avian disease

Subsequent sections deal with actions on confirmation of NEAD (as defined in Annex 1 *Glossary*). For isolation of influenza A virus and APMV-1 viruses that fall outside of these definitions, restrictions at suspect premises are lifted (see Section 7.3 for measures that may still be required in relation to worker protection).

5.9 Communication

Investigations are carried out into possible NEAD infections on a regular and routine basis. This reflects the vigilance among keepers of poultry and other captive birds, which is important in ensuring that NEAD is identified and dealt with promptly.

6. Confirmation of an index case of notifiable epizootic avian disease in Northern Ireland

6.1 Confirming notifiable epizootic avian disease

NEAD is confirmed by the Chief Veterinary Officer (CVO) upon laboratory confirmation of the presence of NEAD virus. It is important to note that, at this stage, further laboratory tests may still be ongoing (e.g. AI virus of the subtype H5 or H7 has been confirmed, even though pathogenicity and N type may yet to be established).

Once disease is confirmed, a series of actions is initiated through the implementation of DAERA Contingency Plans. These include activation of the Central Epizootic Disease Control Centre (CEDCC) and the Local Epizootic Disease Control Centre (LEDCC), declaring relevant disease control zones, confirming measures within the zones and carrying out certain actions at the Infected Premise.

6.2 International notification obligations

On confirmation of notifiable disease the CVO notifies the CVO in DEFRA and the CVO in DAFM. The CVO in DEFRA notifies the World Organisation for Animal Health (WOAH) of the presence of NEAD in the UK within 24 hours of confirming disease. The EC is also notified. Regular reports are submitted to the WOAH and EC as the outbreak progresses. On notification of disease to WOAH, disease free status for that particular disease will be lost if the outbreak occurs in poultry (i.e., outbreaks in other captive birds or wild birds do not affect disease free status, although there may be implications for trade with some Third Countries).

6.2.1 Exports to the European Union

Trade in live poultry, other captive birds and hatching eggs from NI to the EU usually continues unaffected by an outbreak provided that the poultry or eggs do not come from premises under restrictions or within disease control zones (see Section 9). Additional safeguard measures may be applied by the EC which could impose additional restrictions (e.g., to areas outside of disease control zones).

6.2.2 Exports to non-European Union countries

Export health certificates agreed with non-EU countries vary and reflect the destination country's import conditions. Some Third Countries will suspend imports from NI even though export health certificates can be signed.

7. Actions at infected premises

7.1 Measures

Notice will be served on the premises declaring it to be an IP. Certain actions must be carried out at the IP to minimise the possibility of the onward spread of the disease, and these are set out in legislation. The measures described in Section 5.3.1 (suspect premises) will continue to apply.

Key measures at suspect premises:

- Culling - the default position is that all poultry and other captive birds at the IP will be culled (see Section 7.5).
- Disposal - all carcases, eggs and any other contaminated material must be disposed of (see Section 7.7).
- Initial cleansing and disinfection will be carried out by DAERA (see Section 7.8).

7.2 Derogations

See Section 10.1 for circumstances under which deviation from this policy position may be considered.

7.3 Worker protection

Overall responsibility for protecting public health during an outbreak rests with the Department of Health, Social Services and Public Safety Northern Ireland (DHSSPSNI). In the event of an outbreak or suspected incidence of AI, it is a priority to protect the health of those coming into direct contact with diseased birds (e.g., poultry workers, VS staff). DHSS, PSNI, the Public Health Agency and DAERA will all be involved to ensure that appropriate measures are taken to control disease and protect the health of such people. Avian flu - English (hseni.gov.uk)

There are two main concerns regarding human health during an outbreak of AI: Avian flu - English (hseni.gov.uk)

- Protection of the health of those in close proximity to infected birds (e.g., poultry workers) by reducing exposure to material contaminated by the virus and ensuring access to appropriate preventive medication.
- Protection of the health of the wider human population by reducing the likelihood of genetic re-assortment of the virus, which could occur if an individual is simultaneously infected with both human and AI viruses. This involves both protecting the individual from infection with AI and vaccinating them against human influenza.

In cases where individuals, such as poultry workers, have had, or are likely to have, contact with infected birds, measures may be recommended following a risk assessment by the Public Health Agency, including:

- Guidance to those at risk of infection.
- Monitoring of health status of persons exposed to infected birds.
- Limiting exposure to potentially infected birds and other birds.
- Wearing of appropriate personal protective equipment, including respiratory protection, and its safe disposal.
- Vaccination for seasonal influenza (routine vaccination with seasonal influenza vaccine is recommended for all poultry workers).
- The prophylactic use of antiviral medicine.

The implementation of these measures will be based on the probability of transmission of the virus to employees and the likely severity of disease in people, factors which are dependent on, for example, the virus strain and type of IP. Virus strains which fall outside of the definition for AI in poultry or other captive birds may still require measures to be implemented to protect human health.

The Public Health Agency will work with the premises' owner/occupier to ensure that proportionate and appropriate measures are put in place to protect human health.

Guidance has been published on the HSENI website. It is targeted at groups of workers in the poultry industry as defined by the HPA who may be potentially at risk from avian influenza. This advice should be communicated to keepers of birds or those working with birds under such circumstances and in the case of larger poultry companies, be integrated into contingency plans.

During an outbreak, DAERA will take measures to protect its staff with the necessary antiviral drugs and equipment, if appropriate.

7.4 Food safety

Food Standards Agency Northern Ireland (FSANI) advice is that neither AI nor ND pose a food safety risk for consumers if poultry or game meat and eggs are properly handled and prepared on AI. However, there are requirements for the tracing of such products from an IP in order to protect animal health (see section 8.1)

7.5 Culling of birds

Key principles apply in the culling of birds for disease control purposes, including:

- Human health and welfare considerations are paramount.
- Welfare of birds to be culled is an important consideration and is subject to strict to legal controls.
- Birds to be culled to control disease spread must be culled as soon as possible.
- Birds must be culled in such a way as to minimise the risk of the onward spread of disease.
- In very limited circumstances and subject to a VRA, birds may be moved from the premises (e.g., to a slaughterhouse) to be culled.
- Samples may be taken as directed by expert epidemiological opinion.

7.6 Compensation and valuation

7.6.1 Compensation

In line with the Diseases of Animals (Northern Ireland) Order 1981, DAERA's current policy on compensation for NEAD is as below:

- Compensation for any poultry slaughtered is the value of the poultry immediately before slaughter for disease control purposes.

The following principles also apply:

- Only poultry killed under orders from DAERA can be compensated for.
- Compensation will be paid for other things that have to be seized by DAERA should they pose a risk of transmitting disease and cannot be cleansed and disinfected. This will be at the value of the item at the time of seizure (and could mean that the item has very little or even no value if it is considered contaminated following a VRA).
- Compensation is not paid for poultry meat or eggs that are required to be disposed of at the IP or following trace investigations from an IP (as they are from affected birds) (see Section 8.1). This also applies to any carcasses of birds that have died before culling has commenced.

- Compensation is not paid for consequential losses including business interruption caused by control measures, for example losses due to movement bans or lost sales opportunities.

- Any money received from an insurance policy that covers compensated loss as a result of disease, will be subtracted from compensation paid by Government, or if already paid then must be reimbursed.

7.6.2 Valuation

Determination of the value of poultry must be carried out by one of the following methods:

- Valuation by DAERA using valuation tables - this is the default option where this is available for the species and type of poultry to be killed. These are available to download from the DAERA website here. The Agricultural Development and Advisory Service (ADAS) update these tables periodically for DAERA.

- Valuation by expert DAERA valuer, where poultry tables are unavailable.

- Valuation by an independent valuer who is suitably qualified and experienced to value the species and type of poultry, selected by the owner and paid for by DAERA.

7.7 Disposal

In an outbreak of AI, the disposal of carcases and other poultry products by rendering would be implemented immediately. Carcases must be removed from the IP under a Movement Licence.

7.8 Preliminary cleansing and disinfection

Once birds at the IP have been culled, production of the virus ceases. Following the removal of carcases, eggs etc for disposal, preliminary cleansing and disinfection is carried out by DAERA. This includes the premises, any equipment and any vehicles on the premises which may be contaminated. Carried out by DAERA to minimise the risk of onward spread.

This initial cleansing and disinfection is important as its completion is taken into account in determining the minimum length of time disease control zones (see Section 9.6 and 9.7) will remain in place.

7.9 The Lifting of Restrictions on premises after final cleansing and disinfection has been completed

Following preliminary cleansing and disinfection, restrictions will remain in place at the IP as NEAD virus is still likely to exist there. This is due to the fact that it will take time for virus to decay naturally which, in turn, will depend on a number of factors (e.g., exposure to the elements, temperature). For buildings, it is likely to be no less than 12 months.

However, if the owner/occupier wishes to restock earlier than this and the parts of the premises holding the birds can be subjected to final cleansing and disinfection (The final C&D process involves cleansing, degreasing and disinfecting, and then repeating the process to ensure that NEAD virus on the premises is eliminated to the extent possible. Once DAERA is satisfied with the work, sentinel birds can be introduced for restocking after 21 days (see Section 7.10).

Final cleansing and disinfection is the more rapid method for the (NI to regain its official disease free status from the WOAH (see Section 14.3). Not being able to carry this out or delays in completing the procedure will therefore have serious implications on trade with Third Countries. Final cleansing and disinfection must be carried out under instruction from DAERA. After cleansing and disinfection has been completed, an inspector will carry out an inspection of the premises and if satisfied that cleansing and disinfection has been completed, will provide a certificate of completion.

7.10 Restocking of depopulated premises

The repopulation of poultry holdings is not permitted until at least 21 days after final cleansing and disinfection has been completed to the satisfaction of DAERA (see Section 7.9). For the majority of production systems, birds have to be introduced at the full stocking rate. Restrictions will remain in place until it is certain that there is no recurrence of disease.

During the 21 days following repopulation, poultry will undergo official examination by a vet. Sampling for laboratory testing may be carried out. Restrictions on the premises will remain in place until at least the completion of the following:

- Clinical surveillance showing no evidence of infection.
- Any samples taken have returned negative test results for the relevant disease. For ND, any birds used for repopulation should be fully vaccinated against the disease.

7.11 Confirmation of notifiable epizootic avian disease in a slaughterhouse

The above sections do not apply in relation to confirmation of NEAD at a slaughterhouse. In the event of NEAD being confirmed, the isolated carcases (i.e., those from infected poultry or poultry from the same premises or carcases potentially contaminated during the killing/production process) will be destroyed under official supervision. The slaughterhouse owner/operator will be required to carry out cleansing and disinfection of the parts of the slaughterhouse that may be contaminated (e.g., areas used for culling or storage) in accordance with instructions from the slaughterhouse vet. The premises of origin will be traced and an investigation carried out to determine what action is required, including depopulation if appropriate and further actions as applicable to an IP, including tracing.

As stated in Section 5.6, in the time following the submission of samples, if the slaughterhouse operator completes cleansing and disinfecting in accordance with instructions from a DAERA Vet (i.e., of areas potentially contaminated by infected poultry or poultry carcases), live poultry may be allowed to enter the slaughterhouse again for slaughter.

8. Tracing and contact premises

Assessing the risk of any potential spread of NEAD from the IP and the likely source of disease is a vital task in ensuring that the disease is stamped out as quickly as possible.

8.1 Tracing of poultry meat and eggs from an infected premises

There are legal requirements for the tracing of poultry meat and eggs from an IP.

FSANI advice is that neither AI nor ND pose a food safety risk for consumers if poultry meat and eggs are properly handled and prepared. Tracing therefore has the rationale of closing down potential pathways of the spread of NEAD virus to poultry, other captive birds or wild birds to protect animal health.

In the event of NEAD being confirmed at premises, the following activities will be carried out:

- Tracing of hatching eggs from poultry laid during the unregulated period of infection (see Annex 1 - *Glossary*).
- Tracing of poultry hatched from eggs laid during that period.
- Tracing of poultry meat and table eggs may be carried out.

Given the clinical signs associated with HPAI and ND (e.g., high mortality, drop in egg production), the ante and post-mortem checks that take place at slaughterhouses and the nature of the production systems. It would be considered unlikely that either diseased birds or the eggs from diseased birds will have been dispatched from the farm of origin, or poultry meat or eggs from an IP will enter the food chain.

Tracing will be carried out at the direction of the CVO, however given the factors listed above it is unlikely that tracing will require the withdrawal of poultry meat and eggs beyond the primary processing stage (e.g. cutting plant, egg packing centre).

The following table summarises the activities that must be carried out where poultry meat or eggs are traced. In the event of disposal of poultry meat and eggs being required, they must be disposed of in a bio-secure manner at the expense of the owner in compliance with Animal By-Products Regulations at a designated disposal facility. Compensation is not paid (See Section 7.6.1).

Epizootic Avian Disease	Requirements where poultry meat and eggs are traced from an IP			
	Poultry meat	**Table eggs**	**Hatching eggs laid during the unregulated period of infection**	**Poultry hatched from eggs laid during the unregulated period of infection**
HPAI	Must be disposed of by person in possession of it	Must be disposed of by person in possession of them or moved directly to an egg processing plant	Must be disposed of by person in possession of them	Poultry placed under surveillance and not allowed to move off the premises for at least 21 days
LPAI	No requirements for tracing	No requirements for tracing	Veterinary enquiries carried out at premises, as considered	Poultry placed under surveillance and not allowed to move off the premises for at least 21 days
ND	Must be disposed of by person in possession of it	Must be disposed of by person in possession of them or moved directly to an egg processing plant	Must be disposed of by person in possession of them	Poultry placed under surveillance and not allowed to move off the premises for at least 21 days

8.2 Contact premises and other suspect cases

8.2.1 Assessing and classifying contact premises

As detailed in Section 5.3.2, an epidemiological investigation is initiated when premises are declared suspect premises. Upon confirmation of NEAD, such inquiries are critical in determining where the disease is most likely to have originated and where it may have spread. Premises considered as a possible source or places to which disease may have spread are regarded as *contacts*. A level of risk is attributed to the contact based upon many factors, including:

- Nature of epidemiological link (e.g. movement of live poultry, movement of people or movement of vehicle between premises).
- Species, type of premises and levels of biosecurity (e.g. broiler farm, feed mill, slaughterhouse).
- Frequency of contact and time since that contact (e.g. daily, one-off).

- Level of infection on the confirmed premises (e.g. all poultry showing clinical signs or only one shed affected, outside stock only).

The level of risk can generally be classified as one of the following:

- High risk contact - where the link between premises identified is of sufficient magnitude that the disease is very likely to have spread either to or from that premises. Two examples of high risk events are the movement of poultry at a time when the disease was considered to be present or the movement of personnel who do not practise good biosecurity (e.g. farm workers who work on two separate premises and travel frequently between them without practising good biosecurity).

- Medium risk contact - where the link identified is not of the same magnitude as for high risk but there is a common link between premises. A typical medium risk event is the movement of personnel between farms at a time when the disease was considered to be present but they undertook good biosecurity with regards to footwear and overalls. An example of good biosecurity is only to visit one poultry farm per day and to use protective clothing and footwear provided by that farm.

- Low risk contact - where the link identified is not of the same magnitude for medium risk but there is a common link between premises. A typical low risk event is the movement of a person who does not enter the areas where the poultry are kept (i.e. inside the pens within buildings or fields) between farms at a time when the disease was considered to be present.

Once identified, all contact premises will be treated as suspect premises and subject to the restrictions and measures detailed in Section 5.3.

Birds at “high-risk” contact premises (referred to as “dangerous contacts,”) may be pre-emptively culled on the basis of a VRA. In such circumstances samples will be taken from culled birds (on a statistical basis) for laboratory analysis to determine whether the virus was present on the premises. If laboratory results confirm NEAD infection, the premises is declared as an IP and therefore subject to the measures laid down in Sections 7 and 8. Zones will also be declared accordingly (see Section 9). If laboratory results do not confirm NEAD infection, there may still be a risk that infection is present and subsequent actions (e.g., time before restrictions are lifted, the degree of secondary cleansing and disinfection required) will be based on a VRA. The principles outlined in Section 7.6 apply with respect to compensation.

In the case of ”medium and low risk” contact premises, the premises are put under surveillance for a period of time (normally 21 days from the date of last contact), during which samples may be taken for testing.

9. Disease control zones

9.1 General principles

In addition to controls at the IP, zones are usually put in place depending on the disease in question and in accordance with relevant legislation. Section 10.2 describes the circumstances in which deviation from this policy position may be considered. Within these zones, restrictions are placed on premises containing poultry or captive birds. Movements of poultry, other captive birds and other things likely to transmit disease to, from and within the zone are also liable to be subject to restrictions. Again, the rationale behind these measures is to minimise the risk of onward spread of disease to other birds in the vicinity and to rapidly establish whether this already occurred prior to confirmation at the initial IP. Poultry or other captive birds at such premises within the zones may be subject to inspection or examination by a Vet.

9.2 Zones encompassing Northern Ireland and Republic of Ireland

When disease is suspected or confirmed, in either NI or the RoI, notification between the respective Departments will take place as soon as is practicable. Co-operation between both administrations will be essential to reduce the further spread of disease. There are a number of areas where co-operation and agreement will be of particular importance and benefit. Action agreed in respect of these areas is detailed in the Common Chapter (agreed approach between DAFM and DAERA in the event of a suspect or confirmed case of AI).

Close communication will be maintained throughout the outbreak to ensure consistency of approach and measures wherever possible (e.g. the issuing and conditions of movement licences, the ending of zones)

9.3 Size of zones

Legislative requirements determine the minimum size of and measures within zones. Expert advice regarding measures within the zones and their size is sought during the course of an outbreak as more information regarding the disease situation becomes available. If further IPs are confirmed, zones are reshaped (if the IP occurs in existing zones) or newly established (if the IP occurs outside existing zones).

9.4 Types of zones

Scenario	Zones	Section
AI of subtype H5 or H7 (N-type and pathogenicity not yet confirmed)	Temporary control zone (TCZ)	9.4.1
HPAI	Protection zone (PZ) Surveillance zone (SZ)	9.4.2
LPAI	Low pathogenic restricted zone (LPAI RZ)	9.4.3

Details of the principles, measures and requirements within each of the zones are detailed in Section 9.7.

9.4.1 Avian influenza of subtype H5/H7 confirmed (pathogenicity as yet unknown)

When laboratory tests confirm AI of the subtype H5 or H7 but the virus N-type and pathogenicity have not been confirmed, area restrictions may be put in place.

If expert opinion is that the virus present on the premises is likely to be HPAI, a temporary zone (in the form of a TCZ) will be declared. The following factors will be taken into account when deciding on the extent of the zone:

- The results of veterinary enquiries at the IP.
- The geographical features of the area around the IP.
- The location and proximity of other poultry premises in the area.
- Patterns of movements and trade in poultry and other captive birds in the area.
- The facilities and personnel available to control movements within the zone.

If expert opinion is that the virus is not likely to be HPAI, the temporary zone will not normally be declared. In exceptional circumstances, when expert opinion is that it is necessary to reduce the risk of spread of avian influenza from the IP, a TCZ could be declared. This would generally be equivalent to the zone that would be applied if disease were confirmed.

Once further laboratory tests confirm the N-type and pathogenicity, the principles in the relevant subsequent sections apply.

9.4.2 Highly pathogenic avian influenza confirmed

A PZ and SZ will be declared. Legislation also provides powers for DAERA to declare a wider RZ if deemed necessary to reduce the risk of the spread of HPAI. Given past experience of HPAI outbreaks, it is unlikely that an RZ would be declared for such outbreaks.

9.4.3 Low pathogenic avian influenza confirmed

An LPAI RZ may be declared..

Outbreaks of LPAI can bring with them their own particular set of issues. Given that the infected birds may have shown no clinical signs of disease, it is possible that detection will have been delayed, increasing the possibility of spread during the unregulated period of infection. This is especially true for non-commercial poultry premises. Such circumstances increase the importance of tracing and surveillance activities carried out by DAERA.

Legislation allows for certain measures in the zone to be removed based on VRA concluding that disease control would not be jeopardised. However, such discretion would only be considered in highly favourable epidemiological circumstances - i.e., a VRA concluded that the origin of the disease had been established and that the risk of spread had been assessed as negligible.

9.4.4 Newcastle disease confirmed

If ND, (AOAV-1) is confirmed), a PZ and SZ will be declared.

9.5 Surveillance within the zones

Legislation determines the level of surveillance for further cases of NEAD carried out within the zones in order to rapidly establish if disease has spread. This is carried out in addition to the tracing activities described in Section 8. The following key principles apply in disease control zones.

- Premises within the zone containing poultry (and, depending on legal requirements, other captive birds) will be identified as soon as possible.
- Such premises are initially identified using the Northern Ireland Bird Register and other sources of data.
- Such premises may be subject to visits by DAERA staff. During visits, poultry (and, depending on legal requirements, other captive birds) may be examined. If NEAD is suspected, the principles and measures described in Section 5.3 will apply.

- Visits are prioritised according to the type of premises (e.g., large commercial premises) and associated risk factors (e.g., proximity to IP; outdoor/free-range units). Several visits may be made over the course of an outbreak.

9.6 Duration of zones

Legislation determines the minimum duration of zones in terms of the time elapsed since the completion of initial cleansing and disinfection at IP within the zone (see table in Section 9.7). In the event of multiple IP within a zone, this duration relates to the time elapsed since initial cleansing and disinfection was completed at the last premises to undergo this procedure.

In addition to this minimum requirement, a zone will not be ended if suspect premises remain (see Section 5) within the zone at which veterinary inquiries are ongoing or for which laboratory results are pending.

The following principles also apply:

- A TCZ become permanent zones on receipt of results from further confirmatory laboratory tests.
- A PZ becomes part of the wider SZ when ended.
- When an SZ or RZ is ended, area controls cease to apply.

9.7 Measures within zones

The table below summarises the key measures that will apply in the relevant disease control zone: the Declaration (for AI and ND) will detail the exact requirements within the zone(s).

In addition, the following key principles apply:

- Powers exist for additional measures to be imposed if deemed necessary to reduce the risk of disease spread. These are only likely to be considered in the event of the failure of the key measures.
- In relation to measures under which movements are subject to licence, see Section 13.1.

Type of NEAD confirmed	HPAI		LPAI	ND	
Restriction / Zone(s)	PZ	TCZ[3] SZ	TCZ[3] RZ	PZ	SZ
Minimum radius (km)	3	10	1	3	10
Minimum length of time in place since initial C&D at IP (days)	21	30	21	21	30
Record keeping	✓	✓			
Housing or isolation	✓	✓[5]		✓	
Movement restrictions - poultry	✓	✓	✓	✓	✓
Movement restrictions - other captive birds	✓	✓	✓	✓	
Movement restrictions - mammals	✓	✓	✓		
Movement restrictions - eggs	✓	✓	✓	✓	✓[6]
Movement restrictions - poultry meat/carcases	✓			✓	

3 Declaration of a TCZ in the case of HPAI and LPAI would only be considered in exceptional circumstances.

4 The RZ will be removed at the same time as the SZ, in line with European requirements.

5 If a housing/isolation requirement is imposed in the SZ, this may be considered appropriate for the RZ and will be informed by a VRA.

6 Restrictions only on hatching eggs.

Type of NEAD confirmed	HPAI		LPAI	ND	
Restriction / Zone(s)	PZ	TCZ[3] SZ	TCZ[3] RZ	PZ	SZ
Movement restrictions - bird by products					
Movement restrictions - wild game products					
Restrictions - poultry litter, manure and slurry	✓	✓	✓	✓	✓
Requirements - fresh meat and meat products					
Biosecurity	✓	✓	✓	✓	
Ban on bird gatherings	✓	✓	✓	✓	✓
Ban on the release of game birds	✓	✓	✓		

Key:

Record keeping: movements of poultry, eggs and visitors (the latter to/from premises where poultry or other captive birds are kept).

Housing or isolation: poultry and other captive birds must be kept in their buildings or kept isolated from other poultry/captive birds and wild birds. Products of free range flocks that are required to be housed can retain their free range status, provided the housed period does not exceed 16 weeks. The guidance "Preparing for AI - Separating Domestic Birds from Wild Birds" on the DAERA website includes advice on how to protect your birds from wild birds when housing is not possible.

Movement restrictions: movements of the things listed are subject to restrictions.

Restrictions - poultry litter, manure and slurry: cannot be removed from premises or spread except under licence.

Requirements - fresh meat and meat products: requirements relating to marking, sourcing, cutting, transportation and storage will be in place.

Biosecurity: appropriate measures must be put in place for people entering or leaving premises where poultry, other captive birds or eggs are kept.

Ban on bird gatherings: bird gatherings are not permitted within the zone.

Ban on the release of game birds: the release of game birds is not permitted within the zone.

9.8 Controls outside zones

9.8.1 General

Legislation does not require any specific controls outside the declared zones, although as described in Section 8.2, contact premises will be identified and these may be located outside existing control zones.

9.8.2 Bird gatherings

Any decision to impose wider controls on bird gatherings outside of disease control zones will be based on the disease situation and an assessment of risk.

9.9 Communications

Throughout the various stages of a disease outbreak, steps are taken to ensure that all (and especially those in charge of poultry or other captive birds) are made aware of the restrictions and requirements in force in the area. In conjunction with key stakeholders, DAERA will inform keepers/owners of poultry and other captive birds, PVPs and other stakeholders of:

- The disease situation.
- The measures being implemented within zones.
- The need for vigilance for and prompt reporting of clinical signs of disease in birds.
- The need to maintain strict biosecurity.

Communication methods will vary according to the messages required. Premises on the NIBR will be notified of any restrictions or the need for increased vigilance and an appraisal of biosecurity measures on site. Web updates will also be made regularly to reflect the changing disease situation and measures being implemented within control zones. Regular email updates will be sent to key stakeholders' groups and meetings set up as and when required.

The poultry text service will also be utilised to communicate directly to registered bird keepers on the disease control situation and provide advice on biosecurity.

10. Derogations

10.1 Derogation from culling birds

10.1.1 Avian influenza

Limited derogation exists that would allow birds to be spared from culling at the IP on special category premises only (listed below). This is subject to a VRA.

Types of premises at which derogation may be considered:

- Non-commercial premises.
- Circuses.
- Zoos.
- Pet shops.
- Wildlife parks.
- Fenced areas where poultry or other captive birds are kept for scientific purposes or for purposes related to the conservation of endangered species.
- Premises or parts of premises where only breeds of poultry or other captive birds which the Department considers to be rare are kept (see below).

This will only be considered if a VRA concludes that disease control is not threatened by exercising this discretion. Factors taken into account when making such a decision include:

- Whether the AI virus at the IP is highly pathogenic or of low pathogenicity.
- Whether the birds in question are infected or not.
- The biosecurity arrangements that can be put in place at the IP to minimise the risk of onward spread of the AI virus.
- The trade implications of not imposing a stamping out policy (i.e. culling and cleansing and disinfection).

If the derogation is applied, birds must be brought indoors or isolated, and kept in such a way that they do not have contact with other poultry or other captive birds. Similar steps must also be taken to minimise contact with wild birds.

Birds not culled will be subject to further surveillance and testing and not be allowed to move off the premises (unless licensed) until laboratory tests indicate that they no longer pose a risk to the further spread of the AI virus.

10.1.2 Newcastle disease

In relation to ND, the principles and approach to that described above for AI will be adopted wherever possible.

10.1.3 AAvV-1 Avian avulavirus type 1 formerly known as Pidgeon Paranixovirus type

If AAvV-1 is confirmed in pigeons, the default position is that pigeons are not culled. Restrictions imposed on suspicion (see Section 5.3.1) will remain in place on the premises until clinical signs of disease no longer exist. At this point, where live (potentially recovered) pigeons remain on the premises, restrictions will be maintained for a further 60 days after the disappearance of clinical signs of the disease.

DAERA will advise the owner/keeper of the pigeons that they should inform anyone whose pigeons may have recently mixed with the infected pigeons. This will alert others to the existence of disease and to increase their vigilance for clinical signs of disease in their birds.

10.2 Derogation from declaring control zones

10.2.1 Highly pathogenic avian influenza

If HPAI is confirmed in a hatchery, there is provision for flexibility in terms of declaring zones as described in Section 9. Similarly, the declaration of zones is likely not to be required in the event of confirmation of NEAD in a slaughterhouse. In both cases, a VRA will inform the action taken. The premises of origin will be traced and an investigation carried out to determine what action is required, including depopulation if appropriate and further actions as applicable to an IP, including tracing.

If HPAI is confirmed at a premises listed below, derogation exists in relation to the measures imposed within the zones.

Types of premises at which derogation may be considered:

- Non-commercial premises.
- Circuses.
- Zoos.
- Pet shops.
- Wildlife parks.
- Fenced areas where poultry or other captive birds are kept for scientific purposes or for purposes related to the conservation of endangered species.
- Premises or parts of premises where only breeds of poultry or other captive birds which are considered rare are kept. (see below).

In the case of HPAI, the default position is that zones are declared as per Section 9. Any decision to deviate from this position would be based on a VRA that concluded that the origin of the disease had been established and that the risk of spread from the type of premises indicated above had been assessed as negligible.

10.2.2 Newcastle disease

In relation to ND, the principles and approach to that described above for AI will be adopted wherever possible.

10.2.3 Low pathogenic avian influenza

If LPAI is confirmed in a hatchery or in poultry or other captive birds at a type of premises listed in Section 10.2.1, legislation allows for flexibility in terms of declaring a zone (and the measures within) as described in Section 9. In reaching such a decision, the principles in Section 10.2.1 apply.

10.2.4 AAvV-1 Avian avulavirus type 1 formerly known as Pidgeon Paranixovirus type 1

Protection and surveillance zones may be declared if the Department suspects that disease exists in racing pigeons and constitutes a risk to poultry.

11. Emergency Vaccination

Vaccination is not recommended currently for the control of LPAI or HPAI.
Stamping out is the most effective means of controlling an outbreak.
For preventive vaccination, see Section 3.5.

11.1 Avian influenza Legislation

European legislation allows MSs (including NI under the Protocol on Ireland/Northern Ireland) to introduce emergency vaccination in poultry or other captive birds as a short term measure to contain an outbreak when a risk assessment indicates there is a significant and immediate threat of AI spreading within or into a MS (including NI).

11.1.1 DAERA's position

Vaccination is not a routine control measure and is a practice restricted by legislation. Vaccination of poultry or other captive birds is not the most effective defence against outbreaks of AI.

11.2 Newcastle disease

Vaccines for ND with marketing authorisations are commercially available and bird owners can choose whether or not to vaccinate their birds. Under legislation there is provision for the imposition of a compulsory vaccination zone in the event of an outbreak. At present, DAERA cannot foresee circumstances under which we would declare such a zone for an outbreak of ND. Instead, communications will highlight the availability of vaccine against the disease. Any consideration of compulsory vaccination would be based on a VRA and other factors, such as the density of poultry farms in the area and the disease situation.

12. Avian influenza: pigs and other mammals

12.1 Overview

Birds and many mammals can be infected with influenza A virus. From time to time, influenza viruses evolve into new strains of influenza. This can happen within species or through the mixing of viruses from different species. Pigs have been described as possible 'mixing vessels' for the various influenza virus strains.

Swine influenza is largely endemic in most pig producing countries, including Northern Ireland. Swine influenza is not notifiable; however a voluntary code of practice is in place covering the prevention and control of influenza in pigs. This has been issued to all pig keepers in NI.

The viruses that cause AI (i.e. of H5 and H7 subtypes) are not known to circulate in pigs, although they could in theory become infected with these strains. Other influenza viruses of avian origin - H1 and H3 subtypes - have entered pig populations and circulated.

The aim of the controls described in this section is to minimise the risk of pigs acting as agents for further evolution or spread of influenza viruses (including viruses causing AI) to other species including humans.

12.2 Avian influenza confirmed at infected premises where pigs are kept

In cases where AI is confirmed in poultry or other captive birds and pigs are kept at the IP, the pigs will be tested for infection with the virus. This can also be applied to other mammals on the IP. Pigs must be tested for avian influenza on the day the infected poultry are culled (or earlier if possible), and again 21 days after that date.

The testing method would be nasal swabs and blood sampling (or tracheal swabs if absolutely necessary). Epidemiological groups of pigs should be sampled to give a 95% confidence of detecting 5% prevalence of infected pigs.

Pig movements would already be restricted (as a result of the restrictions on the IP) (see Section 5.3.1) and will remain in place unless a veterinary officer confirms the animals are not infected (preferably after 2nd negative lab result) and licenses the movement from the IP.

If the same virus is confirmed in pigs, there are 2 options available:

1. If all pigs have been tested and the avian influenza virus is confirmed in only 1 pig in a herd, the individual animal would be culled. Testing and surveillance of the remaining herd would be maintained to see if other unaffected pigs became infected.

2. If avian influenza virus is found in pigs, a decision to cull the whole herd would be made on a case by case basis depending on VRA.

Any VRA, in the light of a virus positive result, must consider the particular strain of virus and whether it is known to be communicable to other pigs or humans.

There must be careful consideration before undertaking precautionary measures (such as culling). Such measures may be taken if there is clear evidence of transmission between pigs i.e., pigs have become infected (with or without showing clinical signs of disease) are replicating that virus and excreting sufficient virus to have infected other pigs in the herd.

12.3 Suspect influenza in pigs

PVP's can routinely submit samples to AFBI for swine influenza testing. The vast majority of samples originate from cases of respiratory disease submitted to the diagnostic service by PVP's.

12.4 Influenza A virus of avian origin confirmed in pigs not at an existing infected premises

The confirmation in pigs of influenza A virus of avian origin can occur through an unexpected isolation of the virus reported from laboratory testing as described in Section 12.3. The local DVO must be informed of such an occurrence. In such cases, the disease control approach will follow the principles detailed in Section 12.2.

12.5 Preventing avian influenza in wild birds from transmitting to pigs

If HPAI is confirmed in wild birds (see Section 13) near to a pig unit, a VRA may be carried out which would provide the basis for advice given to keepers of outdoor pigs in the area. Such advice is likely to reinforce messages of increased vigilance for clinical signs of disease, prompt reporting of disease and vigilance for any diseased or dead wild birds in the vicinity. Any consideration of such measures will take into account the epidemiological situation at the time, the transmissibility of the virus in question and the risk of reassortment.

12.6 Preventing avian influenza in poultry or other captive birds from transmitting to pigs and other mammals

Powers are available to declare an AI (Restrictions on Mammals) Zone, allowing any measures deemed necessary to control disease spread to be implemented. These could include testing of pigs or other mammals for influenza virus causing AI, restrictions on the movements of pigs and other mammals or requirements for enhanced biosecurity or the housing of pigs or other mammals. Any consideration of such measures will take into account the epidemiological situation at the time, the transmissibility of the virus in question and the risk of reassortment.

13. Exiting from movement restrictions

13.1 Disease control zones

13.1.1 Licensing

The legal framework underpinning the measures described in Section 9 and Section 13 in disease control zones allows for the licensing of certain movements or activities in certain circumstances. Where there is licence provision and, based on expert opinion, it is concluded that allowing a movement or activity would not risk spreading disease, a licence may be issued. Licences will have conditions which are considered necessary to reduce the risk of possible disease spread. Licences may be in the form of a:

- Specific licence - applied for through the Movement Licensing Application, which can be accessed here allowing a one-off movement/activity subject to conditions.
- Multiple licence - applied for through the Movement Licensing Application, which can be accessed here allowing a number of movements/activities to take place over a certain period, subject to conditions, without having to apply for separate licences for each movement/activity.
- General licence - placed on DAERA's website, allowing a movement/activity to take place without applying for a licence. So long as the conditions of the licence can be met, the movement/activity can be undertaken.

As part of good contingency planning, DAERA maintains a library of template licences for NEAD that can be used in an outbreak.

13.1.2 Licensing strategy

It is important to note that the impact of movement restrictions will depend on the nature of the activities related to the poultry/other captive bird sector within the declared disease control zones including:

- The number, size and type of premises containing poultry or other captive birds within the zones.
- The types of related premises within the zones (e.g., location of slaughterhouses, hatcheries) and whether these are *designated* or not (i.e., premises which meet high biosecurity standards and are approved by DAERA.
- The type of activities normally carried out within the zone (e.g., bird gatherings, shooting/hunting of wild birds).

Upon confirmation of NEAD, it is vital that such information is established as soon as possible. However, the role of key stakeholders is crucial in drawing to DAERA's attention the potential issues caused by restrictions. As such, mitigating action can be initiated at an early stage of the outbreak in an attempt to minimise such impacts. DAERA sources, such as the Bird Register, are also used to establish the likely impact of movement restrictions within the zone.

13.1.3 Low risk movements

Under normal circumstances, it can be expected that certain *low risk* movements may be licensed within the first few days after confirmation of disease. The following movements fall into such a category, subject to the disease concerned and certain conditions being met (including those of the respective licences):

- Movement of table eggs to a designated packing centre.
- Movement of table eggs or hatching eggs to an egg processing plant or for disposal.
- Movement of hatching eggs to a designated hatchery.
- Movement of specific pathogen free eggs to a designated laboratory, institute or vaccine manufacturer for scientific, diagnostic or pharmaceutical uses.
- Movement of day-old chicks from designated hatcheries (other than into a PZ).
- Movement of poultry for slaughter in a designated slaughterhouse.
- Carcases for diagnosis (other than for NEAD).
- Carcases for disposal (subject to animal by-products regulations and biosecurity instructions).
- Movement of table eggs within the PZ direct to retail premises, or at/from such premises (Applicable to Newcastle disease only due to differing legislation)

Some of these movements may be licensed from the outset of an outbreak.

13.1.4 Designation

In certain circumstances during an outbreak, it is a legal requirement that a premises/plant is officially designated. A designated premises/plant is one that has been specifically approved to operate either in a particular disease control zone, or with birds (or meat or eggs from such birds) that originated from certain disease control zones. Designation usually requires an application, official inspection and a formal official approval. To become designated there are requirements

for enhanced biosecurity and in some cases additional requirements for special marking of products, separation of restricted products, and record keeping/traceability.

Premises in disease control zones may only send poultry to slaughter where the movement is licensed and the receiving slaughterhouse is designated. There are similar licensing requirements for the movement of table eggs to a designated egg packing centre (if not being sent for disposal or to an egg processing plant) and hatching eggs to a designated hatchery. Premises in disease control zones may only receive day-old chicks where the movement is licensed and they originate from a designated hatchery. A slaughterhouse, egg packing centre or hatchery located within a disease control zone must be designated if it is to receive poultry or eggs from any premises (whether originating from premises within or outside disease control zones), movements of which must be licensed.

Premises wishing to operate during an outbreak may apply for designation during an outbreak. They may also apply in advance of an outbreak for provisional approval allowing any deficiencies to be corrected in advance by contacting Animal Disease Control Policy Branch, email: ADC@daera-ni.gov.uk. However, provisionally approved premises/plants will need to apply for their designation to be activated for a specific outbreak. Those provisionally designated in advance should find formal approval of designation is quicker compared to making a new application at the time of an outbreak.

13.1.5 Other movements

Other movements, such as live poultry/other captive birds (to live rather than for slaughter) and poultry litter/manure/slurry within or out of zones carry a greater risk of further spreading NEAD virus. Consequently, such movements are not likely to be considered by experts for licensing until the epidemiological situation has become clearer, the outbreak had been thus far contained and evidence suggests that there had been no further onward spread of the virus.

13.2 Exports

13.2.1 Exports to European Union countries

Once disease control zones are lifted, and provided that any additional safeguard measures imposed on the UK during an outbreak have also been lifted, the export of poultry and poultry products to MSs can resume as normal.

13.2.2 Exports to non-European Union countries

Export health certificates agreed with non-EU countries vary and reflect the destination country's import conditions. Some Third Countries will suspend UK imports even though export health certificates can be signed. During outbreaks of NEAD, DAERA will liaise with exporters, British

Embassies overseas and non-EU countries' veterinary authorities, both directly and via DEFRA, to keep export markets open and facilitate exports. Priority will be given to those markets most important to exporters. Customer Information Notes are issued on the DAERA website to inform exporters about trade restrictions. DEFRA's role in such discussions with Third Countries may continue for a significant period of time following an outbreak of NEAD.

13.3 Gaining disease freedom

The WOAH sets out requirements which determine whether a country/zone is regarded as disease free (see Section 6.2). For both AI and ND, disease free status for each disease can be regained 28 days after a stamping out policy has been completed, which includes the disinfection of all IP (i.e. secondary cleansing and disinfection as described in Section 7.9) and surveillance met under obligations to European legislation. Alternatively, disease free status can be obtained when it has been shown, through surveillance, that infection with either ND or AI viruses in poultry has not been present for the past 12 months.

Annex 1 - Glossary of Terms

ADAS	Agricultural Development and Advisory Service
AFBI	Agri Food and Biosciences Institute
APHA	Animal and Plant Health Agency. A GB Government Executive Agency responsible for safeguarding animal and plant health in GB. The APHA is the national, European Union and international reference laboratory for avian influenza and Newcastle disease.
AI	Avian influenza. Highly pathogenic avian influenza (see: HPAI) or low pathogenic avian influenza (see: LPAI).
AAvV-1 Avian avulavirus type 1 (formerly PPMV-1 Pigeon paramyxovirus type 1).	An infection of pigeons with a pigeon adapted strain of avian paramyxovirus type 1.
APMV-1	Avian paramyxovirus type 1) . The virus responsible for Newcastle disease. Currently, there are nine serologically distinguishable groups of avian paramyxoviruses (A-1 to A-9).
Birds	Poultry and other captive birds (see: Poultry and Other captive birds).
CEDCC	The Central Epizootic Disease Control Centre. Responsible for the tactical management of disease control and eradication during a disease outbreak.
Commercial Premises	Premises where poultry or other captive birds are kept for commercial purposes. This does not include premises where all such birds and their eggs are kept by their owners for their own consumption or use or as pets.
Common Chapter	Agreed approach between the Department of Agriculture, Food and Marine (DAFM) and the Department of Agriculture, Environment and Rural Affairs (DAERA) in the event of a suspect or confirmed case of Avian Influenza (AI)
CVO	Chief Veterinary Officer. A DAERA official who is responsible for veterinary advice to government and ministers on all aspects of animal health and welfare. In the UK there are CVOs in Northern Ireland, Scotland, Wales and England. The CVO in England represents the UK in the EU and internationally on veterinary matters.
DAFM	Department of Agriculture, Food and Marine (RoI)
DAERA	Department of Agriculture, Environment and Rural Affairs
DEFRA	Department for Environment, Food and Rural Affairs. (GB)

Designated (slaughterhouse, egg packing centre or hatchery).	Official approval of a plant to handle animal products during a specific disease outbreak. This may be required to receive birds or their products that originate from disease control zones or to operate within disease control zones.
Disease Control Zone	An area which has restrictions to prevent the spread of disease.
DoH	Department of Health.
DVO	Divisional Veterinary Officer. A person appointed to that grade by DAERA.
EC	European Commission. An executive of the European Union with responsibilities including proposing legislation and implementing decisions.
Epidemiological Investigation	Investigation carried out into the incidence and distribution of the disease outbreak.
Epizootic	Denoting or relating to a disease that is temporarily prevalent and widespread in an animal population.
ETM	Epizootic Team Member.
FSANI	Food Standards' Agency Northern Ireland. An independent government department set up to protect the public's health and consumer interests in relation to food.
HPA	Health Promotion Agency Northern Ireland.
HPAI Highly pathogenic avian influenza.	An infection of poultry or other captive birds caused by: avian influenza viruses of subtypes H5 or H7 with genome sequences codifying for multiple basic amino acids at the cleavage site of the haemagglutinin molecule to that observed for other HPAI viruses, indicating that the haemagglutinin molecule can be cleaved by a host ubiquitous protease; or avian influenza viruses with an intravenous pathogenicity index in six-week old chickens greater than 1.2.
HSENI	Health and Safety Executive Northern Ireland.
Index case	The first case of an outbreak of exotic disease confirmed by the CVO. NB. This is not to be confused with "primary," "secondary" etc cases, which reflect the true sequence of infection after disease entered NI. The index base is the starting point for an epidemiological investigation which may indicate the source of disease and possible routes of spread.
IP	Infected premises. Premises at which notifiable epizootic avian disease virus has been officially confirmed.
ITHAC	Intra (Community) Trade Animal Health Certificate. Trade in certain animal products, certain live animals or germoplasm with a European Union Member State requires an ITAHC.
Inspector	A person appointed by the Department to be an inspector and includes a veterinary inspector.

LEDCC	Local Epizootic Disease Control Centre. Responsible for the management of epizootic disease control measures in a defined area.
LPAI	Low pathogenic avian influenza. An infection of poultry or other captive birds caused by avian influenza viruses of subtypes H5 or H7 that do not come within the definition for highly pathogenic avian influenza (see: HPAI).
LPAI RZ	Low pathogenic avian influenza restricted zone.
Mammal	An animal of the class Mammalian, except humans.
Movement Control Zone	An area which has restrictions on the movement of birds/animals
MS	Member State. A state that is a member of the European Union by virtue of signing and ratifying the treaties of the European Union.
NEAD	Notifiable Epizootic Avian Disease - Avian Influenza and Newcastle disease (see: AI and ND).
ND	Newcastle disease. An infection of poultry or other captive birds caused by any avian strain of the avulavirus (AAvV-1) with an intracerebral pathogenicity index (ICPI) in day old chicks greater than 0.7.
Non-commercial premises	Premises that are not commercial premises (see: Commercial premises) where poultry or other captive birds are kept by their owners for their own consumption or use as pets.
WOAH	World Organisation for Animal Health.
Other captive bird	Any bird kept in captivity which is not poultry and includes a pet bird and a bird kept for shows, races, exhibitions, competitions, breeding or for sale.
Pig	Any domesticated species of the Suidae family.
Pigeon	Any species of the Columbidae family that are poultry or other captive birds.
Poultry	All birds that are reared or kept in captivity for a) the production of: i. meat; ii. eggs for consumption; iii. other products; b) restocking supplies of game birds; c) the purpose of breeding of birds used for the types of production referred to in points a) and b).
Prevention Zone	An area where measures are taken to prevent disease being spread from wild birds to poultry and other captive birds.
PHA	Public Health Agency Northern Ireland.
PVP	Private Veterinary Practitioner.
PZ	Protection zone.

RoI	Republic of Ireland.
RZ	Restricted zone.
Slaughterhouse	An establishment used for slaughtering poultry, the meat of which is intended for human consumption.
SZ	Surveillance zone.
TCZ(s)	Temporary control zone(s).
Third Countries	Countries outside the EU.
TRACES	Trade Control and Export System. Veterinary authorities from the UK and abroad use TRACES to track the movement of consignments across Europe.
UK	United Kingdom, England, Scotland, Wales and Northern Ireland.
Unregulated period of infection	The period from the date when, in the opinion of the Department, Notifiable epizootic avian Disease may first have been introduced to a premises to the date when measures were imposed upon suspicion of disease in relation to that premises.
VO	Veterinary Officer. A person appointed to that grade by DAERA.
VI	Veterinary Inspector.
VRA	Veterinary risk assessment.
VS	Veterinary Service.
Wild birds	Birds that are not poultry or other captive bird (see: Poultry and Other captive bird).
Zoo birds	Any captive bird kept at a zoo or other collection holding a current Zoo Licence.

Annex 2

European and Northern Ireland legislation for the control of NEAD*

a) Avian influenza

Scope	European Commission	Northern Ireland
Avian Influenza - outbreak control	Regulation (EU) 2016/429 Commission Delegated EU Regulation 2020/687 Commission Delegated EU Regulation 2020/689	The Avian Influenza and Influenza of Avian Origin in Mammals Regulations (Northern Ireland) 2007
Avian influenza - other powers and requirements	N/A	Diseases of Poultry (Amendment) Order (Northern Ireland) 2003 Diseases of Poultry (Northern Ireland) 1995.

b) Newcastle disease and pigeon paramyxovirus type 1

Scope	European Commission	Northern Ireland
Newcastle disease - outbreak control	93/152/EEC (criteria to be used against Newcastle disease in the context of routine vaccination programmes).	Diseases of Poultry (Amendment) Order (Northern Ireland) 2003 Diseases of Poultry (Northern Ireland) 1995
Newcastle disease - other powers	N/A	Diseases of Poultry (Amendment) Order (Northern Ireland) 2003 Diseases of Poultry (Northern Ireland) 1995.
Newcastle disease - control of meat		The Products of Animal Origin (Disease Control) (Amendment) Regulations (Northern Ireland) 2009 The Products of Animal Origin (Disease Control) Regulations (Northern Ireland) 2008

* Disclaimer: The tables contained within Annex 2 are included as a guide and should not be relied upon as an exhaustive list of legislation relating to NEAD. Official copies of all legislation should be checked in the event of an outbreak to ensure the legislation is up to date and legal advice should be sought if necessary.

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