

**EXPLANATORY MEMORANDUM TO
THE AVIAN INFLUENZA (VACCINATION) (ENGLAND) REGULATIONS
2006**

2006 No.2703

1. This explanatory memorandum has been prepared by the Department for Environment, Food and Rural Affairs and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

In this memorandum, the following abbreviations are used:

- “The Regulations” is used to refer to the Avian Influenza (Vaccination) (England) Regulations 2006;
- “The Directive” is used to refer to Council Directive 2005/94/EC on measures for the control of avian influenza in poultry and other captive birds.

2. **Description**

- 2.1 The Regulations implement in England the parts of the Directive which deal with vaccination of poultry or other captive birds against avian influenza.

3. **Matters of special interest to the Joint Committee on Statutory Instruments**

- 3.1 Emergency vaccination is to be co-funded by the Commission whereas preventive vaccination is not. During negotiation on the Directive the Commission made clear their intention that despite there being an immediate and significant threat from another Member State or third country, the Commission would only agree to an emergency vaccination plan if the threat was from a “nearby” third country to the Member State concerned.

- 3.2 However, exactly what “nearby” would mean for each Member State was left for consideration in the light of the risk concerned. Therefore, threats from, for example, the Isle of Man, Republic of Ireland, France and the Channel Islands might reasonably be assumed to be “nearby” in relation to England. On the other hand, we may safely suppose that an immediate and significant threat from a trading partner such as Thailand could never be considered to be “nearby”. But we cannot discount the possibility of a serious risk from, for example,

Luxembourg, Switzerland or Norway being accepted by the Commission as falling into the emergency category. Whether or not they do is likely to be a matter of fact in relation to the risk posed at the time and therefore we have little option but to use in regulation 6 the precise wording of the Directive in this respect.

4. Legislative Background

- 4.1 The legislation is being made to comply with the UK's legal obligations under the Directive insofar as it deals with vaccination.
- 4.2 Previous Community legislation (Directive 92/40/EEC) prohibited vaccination of birds against avian influenza except in an emergency, if agreed with the Commission, in order to supplement control measures in an outbreak of HPAI. The new Directive permits the introduction of emergency vaccination if a risk assessment indicates that there is a significant threat of avian influenza spreading within or into the country due to an outbreak in another nearby country. Member States can do this without an emergency vaccination plan having first been approved by the Commission, but the Directive requires that certain movement conditions be put in place. The Directive also permits Member States to introduce preventive vaccination based on a risk assessment and subject to Commission approval of a preventive vaccination plan.
- 4.3 The Regulations are one of three instruments required to fully transpose the Directive, the other two being:
 - The Avian Influenza and Influenza of Avian Origin in Mammals (England) (No. 2) Order 2006 which transposes the majority of the Directive. This will be made at the same time as the Regulations and revokes the Avian Influenza and Influenza of Avian Origin in Mammals (England) Order 2006;
 - Regulations under the European Communities Act 1972 to make a technical amendment to the Animal Health Act 1981 to require Ministers to slaughter animals in circumstances where the Directive makes this obligatory. At present the Act only permits Ministers to slaughter. This Act needs to be amended for some other diseases for which there are Community obligations to slaughter, and all of these will be incorporated into a single Statutory Instrument later this year.
- 4.4 The Commission has been developing Decisions which supplement the provisions of the Directive. Commission Decision 2005/474/EC lays down requirements for the prevention of highly pathogenic avian influenza of the subtype H5N1 in birds kept in zoos including vaccination of such birds. The Commission agreed the UK's plan for voluntary vaccination of zoo birds in July. This is being implemented by a revision of the Avian Influenza (Preventive Measures) (No 2) Regulations 2005 which will be brought into force shortly as the Avian Influenza (Preventive Measures) Regulations 2006. Vaccination of zoo

birds is therefore excluded from the scope of these Vaccination Regulations.

4.5 EM and SEM 8630/05 on the Directive were cleared from Parliamentary scrutiny in both Houses on 30 November 2005.

5. Extent

5.1 This instrument applies to England only. A separate instrument, which is intended to achieve the same result, is being made in Northern Ireland. The Avian Influenza (Slaughter and Vaccination) (Scotland) Regulations 2006 were made on 7 June and came into force on 1 July 2006. The Avian Influenza (Vaccination) (Wales) Regulations 2006 were made on 5 July and came into force on 6 July 2006.

6. European Convention on Human Rights

6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

7.1 Defra's objective in making these Regulations is to implement the Directive insofar as they relate to vaccination against avian influenza.

7.2 The Directive continues to allow for emergency vaccination in an outbreak but extends this to allow for such vaccination if there is a significant threat of avian influenza spreading within or into the Member State because of an outbreak in another nearby country. It introduces the ability for Member States' to vaccinate preventively based on risk assessment. Both emergency and preventive vaccination require a vaccination plan to be approved by the Commission, but as described above, a Member State may derogate from the need to submit a plan prior to the use of vaccination in the case of emergency vaccination, subject to the imposition of certain movement controls.

7.3 The Regulations include the following:

- A prohibition on vaccination except when required or licensed by the Secretary of State.
- A provision for declaration of a vaccination zone to permit emergency or preventive vaccination as appropriate where a risk assessment indicates that there is a risk of avian influenza spreading within or into England or certain birds are exposed to a risk from, for example, wild birds. Vaccination notices can be issued relating to specific premises to the same end. Vaccination licences can be granted to the occupier

of specific premises, but only to allow preventive vaccination. Again, this can only be done where a risk assessment indicates that the stipulated risk exists.

- Provision for the measures which are to be applicable in vaccination zones or specific premises (i.e. those measures which will be part of a vaccination plan approved by the Commission) to be specified in the relevant declaration, vaccination notice or licence.
- A provision to restrict movements of poultry, other captive birds or eggs within, into or out of an emergency vaccination zone or premises under a notice requiring emergency vaccination where this is done before an emergency vaccination plan has been approved by the Commission.

7.4 Vaccination does offer potential benefits in disease control but currently available vaccines have a number of disadvantages. In particular, although they reduce mortality, it is possible that some vaccinated birds would still be capable of transmitting the disease if they became infected, while not displaying the symptoms. This would slow down the time taken to detect and eradicate the disease. For this reason, we do not intend to use currently available vaccines in advance of an outbreak within this country, or as an *immediate* disease control response. Enhanced biosecurity and surveillance, early detection and rapid reporting and culling remain the most effective means of eradicating disease. However, we are continuing to keep our policy under review in the light of scientific developments. In view of current uncertainties in the nature and speed of the virus, and as part of our contingency planning, we are securing access to a supply of 12.3 million doses of vaccine. We are also working with stakeholders to prepare the details of a vaccination plan should we need to use it.

7.5 The need for vaccination to protect zoological collections of birds has also been considered and a plan to allow voluntary vaccination of zoo birds was approved by the Commission in July. However Defra would only approve the use of vaccination in zoos should a veterinary risk assessment show that this is necessary due to an increased level of risk.

7.6 A full consultation on plans to implement the Directive has been undertaken. 34 organisations responded, with 11 of those commenting specifically on the vaccine requirements. These were points of detail and have been considered and taken into account where appropriate. A consultation summary will be available on the Defra website.

8. Impact

8.1 A full Regulatory Impact Assessment has been prepared for the transposition of the Directive. The costs of any vaccination strategy is being considered separately as part of a draft vaccination plan which Defra could put to the Commission if it decides to use vaccination.

8.2 A Transposition Note is attached.

9. Contact

- 9.1 Julian West at the Department for Environment, Food and Rural Affairs can answer any queries regarding the instrument: Tel: 020 7904 6142 or e-mail: julian.west@defra.gsi.gov.uk

Council Directive 2005/94/EC on Community measures for the control of avian influenza and repealing Directive 92/40/EC.

Table showing transposition of the provisions in the Directive relating to vaccination by the Avian Influenza (Vaccination) (England) Regulations 2006

NB

- Provisions in the Directive requiring member States to slaughter will be transposed by an Order amending the Animal Health Act 1981. The Act currently gives us powers to slaughter where necessary and the amendment will make clear that this power will always be exercised when required by EC law.
- All other provisions in the Directive are transposed by the Avian Influenza and Influenza of Avian Origin in Mammals (England) Order 2006

Article in Directive	Regulations	Subject	Comments
52(a)	5	Prohibition on vaccination in the territory	
52(b)		Handling, manufacture etc carried out under official supervision	Already the subject of secondary legislation: Specified Animal Pathogens Order/Veterinary Medicines Regulations.
52(c)	9	Type of vaccine used	Shall be stated in the declaration/notice/licence.
53(1)	6, 9 and 10	Emergency vaccination in poultry or other captive birds	
53(2)		Requirement to submit an emergency vaccination plan	Administrative action
54		Approval of the emergency vaccination plan	Action to be taken by the Commission
55(1) and Annex IX	Regulation 10 and Schedule – see transposition table for Annex IX below.	Derogation concerning emergency vaccination before approval of the plan by the Commission	Article 55(1)(a) (notification) requires administrative action
55(2) and 55(3)		Review of the emergency vaccination plan as soon as possible after derogation exercised	Action to be taken by the Commission
56(1)	7 and 9	Preventive vaccination in poultry or other captive birds	
56(2)		Requirement to submit a preventive vaccination plan	Administrative action
57(1) and 57(2)		Approval of the preventive vaccination plan	Action to be taken by the Commission
58		Community vaccine bank	Action to be taken by the Commission
59		National vaccine bank	Administrative action.

Table showing transposition of Annex IX

Paragraph in Annex IX	Paragraph in Schedule (or regulation)	Comments
2	Regulation 9(1)(j)	Paragraph 2 of the Annex requires C&D to be carried out in accordance with Art 48. Art 48(c) deals with the C&D of vehicles, which says that it is to be carried out under official supervision in accordance with official veterinarian's instructions. The policy is that this will therefore be dealt with in the declarations and notices.
3(a)	Para 1(1)(a) and 1(2)	
3(b)	Para 3(1)(a) and 3(2)	
3(c)	Para 5 and Reg 10(4)	The obligation to keep day-old chicks (and other live poultry and other captive birds) separate from poultry at the premises of destination is imposed on the occupier of those premises in regulation 10.
3(d)	Para 8(1)(a) and Reg 10(4)	
3(e), 6(a) and 6(b)	Paras 11(1)(a), 11(2), 12(1)(a), 12(2) and Reg 10(6)	Instructed that slaughterhouses would not want to slaughter birds whose meat could not be moved off the premises, the conditions for meat in the Annex should be incorporated into the conditions for poultry going for slaughter.
4(a)	Para 2	
4(b)	Para 4	
4(c)	Para 7 and Reg 10(4)	
4(d)	Para 10 and Regs 10(4) and 10(5)	
4(e), 6(a) and 6(b)	Para 13 and Reg 10(6)	Poultry from outside the zones or premises under notice can only be unvaccinated and therefore only covered in Part 6 of the Schedule and not part 5.
5(a)	Para 1(1)(b) and 1(2)	
5(b)	Para 3(1)(a) and 3(2)	
5(c)	Para 6(a) and Reg 10(4)	
5(d)	Para 9 and Reg 10(4)	
5(e), 6(a) and 6(b)	Paras 11(1)(a), 11(2), 12(1)(b), 12(2) and Reg 10(6)	
7	Reg 10(3)(c)	The policy is that movements for disposal did not need to be licensed, and therefore appears as an exception to the prohibition on movement.
8	Reg 10(3)(b)	Packed eggs are eggs for retail distribution. There are no restrictions on the movement of meat as such given that the conditions will have already been met before the poultry goes for slaughter.
9	Para 14	

Plans to implement Council Directive 2005/94/EC on the control of avian influenza

REGULATORY IMPACT ASSESSMENT

1. Title of Proposal

1.1 Transposition of Council Directive 2005/94/EC on measures for the control of avian influenza in poultry and other captive birds.

1.2 The transposition will be carried out by the following three separate statutory instruments (SIs):

- The Avian Influenza and Influenza of Avian Origin in Mammals (no 2) (England) Order 2006, made under the Animal Health Act 1981, which will implement the majority of the Directive;
- The Avian Influenza (Control of Vaccination) (England) Regulations 2006, made under the European Communities Act 1972, which will implement the vaccination provisions of the Directive;
- The Animal Health Act (Amendment) 2006, made under section 32A of the Act, which will provide for compulsory slaughter of animals where the Directive requires this.

2. Purpose and intended effect of measure

(i) The objective:

2.1 The objective is to implement the new Directive and to take advantage of its overall deregulatory nature. Although the Directive is more detailed than its predecessor, it importantly:

- Allows the control of the disease to be proportionate to the risk posed,
- Helps to prevent outbreaks of highly pathogenic avian influenza (HPAI) in commercial flocks by monitoring and controlling the low pathogenic form of the disease (LPAI),
- Provides derogations from slaughter for certain categories of birds/premises (eg zoos, wildlife parks, registered rare breeds, birds kept for conservation purposes)
- Helps to prevent outbreaks of highly pathogenic avian influenza (HPAI) in commercial flocks by controlling disease in other captive bird premises

2.2 The Directive revises and updates the previous Community measures for the control of avian influenza. It takes account of the lessons learned in the outbreaks of avian influenza in the Netherlands and Italy and the most recent scientific knowledge.

2.3 The Directive maintains the principles of control contained in the previous Directive and which are fundamental to other Directives dealing with exotic notifiable diseases. These include notification of suspect disease, investigation by the competent authority, stamping out of disease on infected premises and the imposition of movement controls to reduce the risk of the spread of disease.

2.4 The Directive introduces a number of new measures for avian influenza. As well as those listed at paragraph 2.1 above is the ability in an outbreak to monitor and control pigs found to have the avian influenza virus, establishment of temporary movement control around suspect premises to reduce the possible risk of transmission of disease and the registration of commercial flocks to assist in control an outbreak.

2.5 The objective is also to implement three measures not included in the Directive:

- Powers to introduce preventive measures key of which are to separate poultry from wild birds if a risk assessment shows that those birds pose a significant risk of the spread of disease and the power to ban gatherings of birds, subject to risk assessment and a licensing system.
- A requirement for those who notify the suspicion of disease not to move anything from the premises concerned that might pose a risk of the spread of disease pending the arrival of the Veterinary Officer to investigate the suspicion, and
- The power to close footpaths in a protection zone if a veterinary risk assessment shows this is necessary to reduce the risk of spread of disease.

(ii) The Background

Disease Situation

2.6 The UK has had five outbreaks of HPAI in poultry since the late 1950s, the latest being in 1991 in a flock of turkeys in Norfolk. It was thought to have been triggered by the mutation of an LPAI virus into an HPAI virus in the poultry house. In 2005 there was also one case of HPAI which was contained in a bird quarantine facility. All these outbreaks were confined to a single holding, were contained by stamping out and did not spread. In April 2006 LPAI was confirmed on three poultry farms in Norfolk.

2.7 There have been a number of far more serious outbreaks of HPAI in countries around the world in recent years, including the Netherlands, Italy and SE Asia, with devastating effect (the outbreak that occurred in the Netherlands in 2003, resulted in the slaughter of 30.7 million birds and heavy financial losses to the poultry industry). In 2005 China, Russia, Mongolia,

Kazakhstan, Turkey, Romania and Croatia confirmed outbreaks and there has been increased global concern on the risk posed by migrating wild birds.

The Current Law

2.8 The Diseases of Poultry (England) Order 2003 (SI No 1078) was revoked as far as avian influenza is concerned on 27 April 2006 and replaced with the Avian Influenza and Influenza of Avian Origin in Mammals Order 2006. The new Order was made, with the agreement of industry, before the consultation exercise ended so that the outbreak of LPAI in Norfolk could be dealt with. The Order is being amended (the Avian Influenza and Influenza of Avian Origin in Mammals (England) (no 2) Order 2006) to take account of substantive comments arising from the consultation and problems identified during the outbreak. Previous Community measures for the control of avian influenza were laid down in Directive 92/40/EEC, as amended.

2.9 As a result of the current situation, the Commission has introduced temporary preventive measures. In England, these measures were implemented in domestic legislation key of which is providing powers to separate poultry from wild birds and a ban on bird gatherings should a risk assessment show that such action is necessary (the Avian Influenza (Preventive Measures) (no 2) Regulations 2005). Ministers wish to have these powers available in the new legislation to implement the Directive.

Benefits from the New Directive

2.10 We have consulted closely particularly with industry partners and others affected during the negotiations on the Directive. Industry want controls to stamp out disease when it occurs. However, the controls have to be proportionate to the risk and must not stop industry operations and movements unnecessarily, albeit with tighter biosecurity rules. This has been achieved in the new Directive. The flexibility introduced by the Directive will therefore in many circumstances significantly reduce the impact of an outbreak.

2.11 LPAI viruses seldom cause significant disease in poultry. But these strains can and do mutate into HPAI which usually causes high mortality in poultry. The introduction of surveillance and control measures for LPAI reduce the risk of an outbreak of HPAI, which would have far more serious consequences and costs for farmers, Government and the economy.

(iii) Rationale for government intervention

General

2.12 Avian influenza is one of a number of exotic animal diseases which are internationally recognised as causing severe damage to the industry. The highly pathogenic form of the disease can cause high and rapid mortality in many poultry species. Outbreaks have to be notified to the OIE and other countries refuse to accept any exports that might pose a risk of disease

spreading. International standards require the elimination of the disease and country freedom is not recognised until this has been achieved. In addition, avian influenza has zoonotic potential sometimes causing mild infections but occasionally death. Only relatively few humans have become infected with HPAI viruses, mostly during close contact with infected birds. The mortality of patients with virologically confirmed avian influenza infection is high (30-50%)

Reducing the Risk of HPAI Outbreaks

2.13 There is a constant background risk of avian influenza viruses spreading to poultry, particularly outdoor flocks, from migrating birds and waterfowl. Waterfowl can be infected with HPAI or LPAI viruses without showing any signs of disease and have been shown to excrete virus for extended periods of time. Open water troughs that are used by both outdoor flocks of domestic birds and migratory birds are a particularly relevant source of transmission of AI virus. The disease poses a major threat to poultry industries, through direct losses of susceptible birds, damage to related industries and trade.

2.14 It is important to have surveillance and control of LPAI to reduce the risk of HPAI outbreaks. It is understood that the HPAI outbreak in Italy in 1999-2000 originated from an LPAI virus circulating in poultry farms in previous months. It is possible that the HPAI outbreak would have been prevented or reduced in size if early surveillance and rapid control had taken place. In the event, 14 million birds were lost at a cost of 101.7m Euros in direct costs and 400m Euros in indirect losses. It will not, however, be possible to prevent all outbreaks because mutations are unpredictable and may happen too rapidly to guarantee detection.

Reducing the Risk of Disease Spread

2.15 Spread of HPAI may be rapid and can be difficult to contain, particularly in areas of high density of poultry as was the case in the Netherlands in 2003. Although we do not have such high density areas, effective and proportionate controls are still essential. The disease is notifiable but, however quickly an investigation takes place on suspect premises, disease may already have spread to other premises through movement of live birds, poultry manure, contaminated people, vehicles or equipment. Modern disease control measures to impose movement restrictions on a local or national basis whilst the extent of potential disease spread is established are potentially important in limiting the scale of an outbreak.

Vaccination

2.16 The Directive includes an option for emergency or preventive vaccination in certain circumstances of disease threat following approval by the European Commission. Vaccination does offer potential benefits in disease control but currently available vaccines have a number of disadvantages. In particular, although they reduce mortality, it is possible that some vaccinated birds would

still be capable of transmitting the disease if they became infected, while not displaying the symptoms. This would slow down the time taken to detect and eradicate the disease. Enhanced biosecurity and surveillance, early detection and rapid reporting and culling remain the most effective means of eradicating disease. However, the need for vaccination to protect zoological collections of birds has been considered and a plan to allow voluntary vaccination of zoo birds agreed with the Commission. However, Defra would only approve the use of vaccination in zoos should a veterinary risk assessment show that this is necessary due to an increased level of risk. More widespread use of vaccination is being kept under review in the light of scientific developments. Nevertheless, it is necessary to provide a legal base to require vaccination or to permit bird keepers to vaccinate their birds themselves so that we have the full range of options open to us.

Role of Pigs and other Mammals

2.17 It is known that other mammals, particularly pigs, may play a role in the way the virus adapts to cause human infection. The risk of pigs acting as mixing vessels (when infected with both avian and human influenza viruses) resulting in the emergence of new influenza viruses capable of creating a human pandemic is very small but could occur. It is important, therefore, to include investigation and control of pigs (and other mammals if necessary) in avian influenza control requirements.

The need for Regulatory Action

2.18 The option of controlling the disease by means of codes or other non legislative means in an outbreak must be considered. No doubt the majority of individuals concerned in an outbreak would respond to such measures. Nevertheless, all those concerned must abide by the rules if disease is to be contained. Not only would it be irresponsible for Government not to have the backing of legal powers to control exotic notifiable disease in animals but we are also required by our Community obligations to implement the Directive in a way that can be enforced.

3. Options

3.1 Three main options have been identified:

Option 1: Do nothing and continue to rely on controls in the Diseases of Poultry (England) Order 2003. Option 1 acts as the baseline for the other 2 options.

3.2 The Government's policy had already changed following the lessons learned from the 2003 outbreak of avian influenza in the Netherlands. It had been agreed that the Diseases of Poultry Order would be supplemented in an outbreak to expand the powers available to control disease. Nevertheless, this Order would still have not fully implemented the provisions of the new Directive. Not only would this not fulfill our Community obligations but also,

and significantly, we would not be taking advantage of the ability the Directive offers to implement controls in an effective and proportionate way. In the event, an outbreak of LPAI in Norfolk precipitated the making of the Avian Influenza and Influenza of Avian Origin in Mammals Order early and this option is not considered further.

Option 2: Transpose the Directive exactly

3.3 It would be technically possible to implement the new Directive without taking advantage of the various derogations it contains. However, taking such a course would lose much of the benefit that the new Directive provides compared to its predecessor and which have been negotiated by Member States. Such a course is therefore dismissed.

3.4 The provisions of the Directive retain the basic principles of disease control contained in previous legislation but introduce key new measures. The important additional requirements in the Directive are summarised in Table A below.

Table A – New requirements of the 2005 Directive
<ul style="list-style-type: none"> • surveillance for low pathogenicity avian influenza (LPAI) and controls following outbreaks of LPAI on holdings.
<ul style="list-style-type: none"> • the option to impose a temporary national, regional or local movement restriction on suspicion or confirmation of disease.
<ul style="list-style-type: none"> • the ability for competent authorities to derogate from certain control measures following a veterinary risk assessment and where they will not endanger disease control.
<ul style="list-style-type: none"> • extending controls to captive birds (already in domestic legislation).
<ul style="list-style-type: none"> • introducing measures for pigs and other mammals.
<ul style="list-style-type: none"> • new provisions for preventive vaccination.
<ul style="list-style-type: none"> • a requirement for a database of commercial poultry holdings (already a requirement of European food hygiene legislation and in domestic legislation).
<ul style="list-style-type: none"> • provision for recognition of officially registered rare breeds of poultry and other captive birds so that these sectors have the possibility of taking advantage of derogations within the proposal.

Option 3: As Option 2 but with some additional measures

3.5 The Directive sets down minimum measures but specifically allows, in Article 1, for Member States to take more stringent action. Option 3 goes further than the Directive in a limited number of areas, based on veterinary advice. These additional provisions are set out in paragraph 2.5 above

4. Business sectors affected

4.1 The Directive has requirements for 'peace time' and requirements that only take effect when avian influenza is suspected or confirmed. The 'peace time' requirements are:

- surveillance for low pathogenicity avian influenza (LPAI);
- a database of commercial poultry holdings;
- recognition of officially registered rare breeds of poultry and birds.

Businesses affected in 'peace time'

4.2 The effects on businesses when we have no outbreak will be the same under options 2 and 3.

4.3 *Surveillance for LPAI.* The Commission has required member states to carry out annual surveys of poultry since 2003. A sample of commercial holdings are selected at random to provide statistically based evidence of the presence of disease. Using the 2005/6 survey estimate as an example, 446 poultry holdings in the UK would be affected. Businesses would incur only small costs from this.

4.4 *Registration of all commercial poultry holdings with the Agriculture Departments.* The registration of birds will be consulted on separately with a separate RIA.

4.5 *Officially registered rare breeds of poultry or other captive birds.* We have worked with the appropriate organisations on the criteria for registration of breeds. The number of businesses affected is not known at this stage but it is likely that many of such birds will be owned by hobby keepers. The registration of rare breeds will provide benefits for keepers as they will be eligible for the application of derogations provided that disease control is not at risk. The costs of registering a breed are likely to be small, and consist only of the time it takes to fill out the form. Since registration will be voluntary there will be no net costs to rare breed owners.

Businesses affected in a suspected or confirmed outbreak of avian influenza

4.6 The number of businesses affected by the Directive depends on the nature of the outbreak. At one end of the scale an outbreak may be only on a single premises and one infected area be declared with its associated movement restrictions lasting for around 30 days. Past evidence suggests that this would be the most likely scenario in the UK. All outbreaks since the late 1950's have been contained before they had an opportunity to spread. This was the case also in the outbreak of Newcastle disease in Surrey during the summer of 2005. Large scale diffusion of an AI virus within the national poultry flock on the scale of the epidemic in the Netherlands in 2003 is less likely, but not impossible. Poultry densities overall are far higher in the Netherlands and transmission of the virus will have been facilitated by close proximity of flocks both to each other and to sources of infection such as the many stretches of water in the Netherlands attracting migratory birds.

4.7 The types of businesses affected or potentially affected by the Directive include the commercial poultry sector and related industries (egg packing, egg products, poultry meat and meat products etc), the game shooting industry, the export industry, premises with backyard flocks, zoos, pet shops, aviaries, laboratories, conservation areas, border inspection posts and quarantine stations. Only a very few circuses in the UK have birds and, even then, only one or two birds in each case. The Directive would therefore have no significant affect on them.

Any business within the agricultural supply industry (eg feed manufactures and merchants) or other type of business that regularly visits premises where poultry are would be affected by the need for increased biosecurity during an outbreak.

4.8 The poultry industry in the UK is one of the largest in Europe (the production of 647,000 tonnes of eggs for human consumption is forecast for 2005, fifth highest of the 25 EC countries¹).

4.9 A breakdown of holdings by species and geographical spread can be found at Annex 1 based on 2004 Agricultural Census statistics. Commercial poultry premises with more than 50 birds are now required to register on the GB Poultry Register. High level poultry density maps drawn from the register are available on the Defra website. Further detailed reports will be available in due course.

Poultry farms².

Country	No. of Poultry Farms	No. of Birds
England	34,141	136,697,761
Scotland	5,219	15,896,813
Wales	5,345	8,688,428
Northern Ireland	1,823	20,509,000

4.10. The structure of the industry is one of a relatively small number of large-scale producers. Around nine tenths of poultry production units are small scale units with less than 100 birds on each unit, illustrated by the breakdown of holdings in England and Scotland from the 2004 Agricultural Census at Annex 1 (paragraph 4).

4.11 The poultry industry would have costs arising from movement restrictions, and in the case of free range and organic producers, from separating wild and captive birds. While production costs may be lower in a barn system (if such facilities are available) there will be significant losses to the industry if they lose free range status through restrictions being imposed for more than 12 weeks. However this is thought unlikely. The derogations available to allow movement wherever this will not pose unacceptable risk will benefit the poultry industry and reduce the regulatory burden upon them.

¹ Commission's Forecast Group

² The poultry industry has a high turnover of livestock - the 2004 Census figures provide a snapshot and do not necessarily provide an average throughout the year.

Game rearing establishments³

4.12 The Game Conservancy Trust estimate that there are in excess of 10,000 holdings where pheasants are reared. The Game Farmers Association estimates that 20-30 million game birds (pheasants, partridge and ducks) are reared for release.

4.13 If an outbreak affected reared game, for example by preventing birds being released, imposing movement restrictions or necessitating the separation of wild and captive birds, the knock on effect for shooting sports and the income they generate in rural areas would be significant. In 1997 the annual UK turnover in relation to game shooting was estimated at £600 million supporting more than 40,000 full time jobs⁴. Much of this economic activity would collapse if game could not be reared and released.

Mixed pig and poultry farms

4.14 The proposal also requires investigation into pigs on holdings with confirmed avian influenza. There are 4,091 mixed pig and poultry holdings in England. The vast majority of these are very small/part time or small holdings:

Size	Very small	Small	Medium	Large	Very large
ESU ⁵	0:<8	8:<40	40:<100	100:<200	200 and over
Holdings	2346	1041	392	200	112

Movement restrictions and possible slaughter of the pigs could impose additional costs on a farm in the event that it suffered an outbreak (or suspected outbreak) of avian influenza.

Other businesses and rural industry

4.15 Other businesses that might be affected include zoos, pet shops and bird sanctuaries. There are currently over 300 licensed zoos within England. BIAZA (the British and Irish Association of Zoos and Aquariums) represent 66 collections in the UK (and 4 in Ireland). Over 90% of their members reported keeping at least one species of bird during 2004.

4.16 The main benefit from the Directive to zoos, and other owners of rare breeds, will be the derogations from slaughter for their rare and expensive birds that may be available. These businesses will also benefit from a lower risk of disease, but may face small costs from movement restrictions and separating wild birds from their collections. The closure of footpaths around businesses such as wildlife parks or bird sanctuaries may also adversely

³ Information about the game industry tends to vary widely and is indicative only.

⁴ Countryside sports: their economic and conservation significance by Cobham Resource Consultants

⁵ Economic size unit

affect revenue. However, the greatest cost to zoos and other such businesses is likely to be a fall in visitor numbers due to a perceived potential health risk, a cost which is caused by the outbreak of disease itself and not the measures in the Directive.

4.17 Other rural industries such as tourism may be adversely affected, particularly by footpath closures. However, these are likely to be confined to the immediate area of an outbreak and so most business is unlikely to suffer.

4.18 Bird fanciers and show organisers may lose revenue if they can no longer exhibit their birds at shows and gatherings. Pigeon racers, and race organisers, may also suffer losses.

Economic benefits

Option 2 (Transpose exactly) - Benefits

4.19 The Directive benefits the poultry industry by specifically addressing the lessons learned from recent outbreaks of avian influenza and latest scientific knowledge. The key additional elements are summarised in Table A above.

4.20 The risk of an outbreak of HPAI should reduce (although cannot be eliminated), as the new measures for surveillance and control of LPAI will impact on the risk of undiscovered LPAI viruses mutating to HPAI. As major epidemics of HPAI in other EU countries have led to severe indirect losses to the industry, for which they receive no compensation, the Directive will have a favourable economic impact on the poultry sector. The options for control of LPAI are based on risk of disease spreading assessed at the time of the outbreak and allow for the production cycle and trade to continue unless high risk is indicated.

4.21 Expanding the controls in the event that an outbreak of avian influenza occurs also offers significant benefits. The ability to impose national, regional or local movement controls on suspicion or confirmation of disease allows the extent of potential disease spread to be assessed whilst preventing it spreading any further. The need to impose these controls would be assessed on a case-by-case basis. The measures provide the potential for easier containment of the disease, fewer birds to be slaughtered and fewer premises to be placed under restriction. The Directive also allows the State Veterinary Service to derogate from some controls where this does not endanger disease control to allow industry to continue operating during an outbreak.

4.22 Holding consolidated data on commercial poultry keepers, the location of their flocks and numbers of birds significantly improves government's ability to monitor disease outbreaks and prevent further spread of disease. This requirement has therefore been implemented in advance. The data will assist in mitigating outbreaks by making risk assessments on likely impact of an outbreak and farms most at risk more accurate, making it easier and less costly to trace contacts, enforcing movement restrictions in the infected zone and informing decisions on the need for culls.

4.23 There is likely to be a positive impact on zoos, pet shops and premises which contain pet birds and rare breeds of birds, etc. due both to the reduced risk of HPAI outbreaks and the distinction between non-commercial holdings (eg zoos) and commercial holdings which allows for less stringent action in non-commercial holdings if there is no threat to disease control.

Social benefits

4.24 These may include a decrease in the risk of poultry and other birds contracting HPAI, which will significantly reduce the public health risks posed by avian influenza viruses, since the exposure to avian influenza viruses in domestic birds is the main source of infection. Outbreaks of HPAI would cause considerable stress to farmers, others in the poultry industry and the staff they employ, not least the concerns over their own and their families health. The welfare of birds on restricted premises could also be an issue, particularly if staff are reluctant to carry out their normal duties.

Environmental benefits

4.25 The main environmental benefits from the Directive would be the reduced impact of culling and disposal, as more effective control would potentially reduce the number of infected premises, the duration of the outbreak and therefore the number of birds slaughtered.

Option 3 (Additional measures) – Benefits

4.26 The benefits of these controls are very similar to those for Option 2. However, veterinary advice is that the imposition of some controls additional to those in the Directive, set out at paragraph 2.5 above, are necessary. These controls could provide additional benefits in leading to a reduction in the overall size and duration of an outbreak and limiting its cost and impact, including in environmental and social terms.

4.27 The requirement not to move anything on or off the farm between notification and investigation of suspected AI will prevent the movement of contaminated materials that could spread disease. It is a very small burden on the business concerned.

4.28 The power to close footpaths in a protection zone. The movement of people in areas where disease is present can pose a veterinary risk, especially where walkers on footpaths may come into contact with poultry. The closures would be limited to the protection zone, a minimum of 3 km around an infected premises unless extended further where justified by risk. It is unlikely that this power would be needed beyond the infected premise itself but there may be circumstances where a veterinary risk assessment concludes that wider closure is necessary. Government policy is to keep the countryside open for business as far as possible during a disease outbreak.

4.29 The power to introduce preventive measures such as separating poultry from wild birds under the threat of disease from migrating wild birds will

provide benefits in allowing early action to reduce the risk of disease entering the national flock.

5. Costs

(i) Compliance costs to business

Costs in 'peace time'

5.1 These costs have been described already at paragraphs 4.2-4.5 above.

Costs in a suspected or confirmed outbreak of avian influenza

Option 2 – Basic implementation of the Directive

5.2 Current legislation already imposes costs on businesses in the event of a suspected or confirmed case of HPAI and these would continue under the Directive. The Directive introduces control measures for LPAI. Costs are difficult to quantify for both types of the disease and depend very much on the nature of the outbreak. As well as the cost of the loss of birds if disease is confirmed and the restriction on movements, there may be costs in housing and isolating free range birds, cleansing and disinfecting holdings and additional requirements for biosecurity of vehicles. Controls over a suspect case would be of limited duration but may nevertheless have some cost impact. The range of different scenarios for a confirmed case of disease is wide. A confirmed case of HPAI contained on one holding would impose restrictions on poultry and bird premises in a 10 km zone for a minimum of 30 days after the infected holding had undertaken preliminary cleansing and disinfection plus wider controls (see paragraph 5.4 below). A similar scenario in a confirmed case of LPAI would impose restrictions in a 1 km zone for a minimum of 21 days. At the other end of the scale would be rapid spread of HPAI across the country with multiple infected areas. An economic assessment giving an indication on how industry costs vary as a function of number of infected premises is being carried out and will be made available on the Defra website during autumn 2006.

5.3 Compensation is payable under the Animal Health Act 1981 as amended for healthy birds that are compulsorily slaughtered for avian influenza disease control purposes. It is not payable for consequential losses or indirect losses to business during an outbreak. For example, BIAZA has pointed out that zoos rely almost entirely upon the revenue generated by visitors to sustain them. There would be serious financial implications if a zoo was closed (although the more likely scenario would be restriction of access to the aviary concerned) or visitor numbers reduced due to loss of confidence (although this consequence is likely to be caused by the disease itself rather than the control measures required by the Directive). The economic assessment mentioned above will also give an indication of the size of the different types of consequential losses suffered by different industry sectors as a function of the number of infected premises.

5.4 The Directive introduces the possibility of a national or regional temporary control zone on suspicion or confirmation of disease. Temporary movement restrictions may have considerable impact on some sectors of the industry, eg hatcheries that are highly mechanised and subject to tight timetables. Movement controls have the potential to impact on producer profits because of increased costs associated with keeping or losing excess stock and suboptimal marketing leading to lower prices.

5.5 However, the Directive allows the State Veterinary Service to derogate from some control measures in the controlled zone as long as disease control is not threatened. This new flexibility will allow the industry to function as far as possible although there will be increased biosecurity requirements. The benefits of this will significantly outweigh any costs.

5.6 The proposals will impact on farms where both pigs and poultry are kept (around 4,091 in England) and poultry are confirmed with avian influenza. Establishments such as zoos may also fall into this category. UK Government policy is to pay compensation for animals that it requires to be slaughtered. Where movements are restricted but disease is not confirmed, farmers can expect some consequential losses particularly where the pigs were due to be marketed, in terms of extra food, labour and deterioration of the pig's optimum marketing weight. However, such restrictions are unlikely to last longer than around 13 days. Zoos may be subject to restrictions that impact on their revenue.

5.7 The costs of any vaccination strategy is being considered as part of a draft vaccination plan which Defra could put to the Commission if it decides to use vaccination.

Option 3 additional costs of the items at Paragraph 2.5

5.8 The costs of Option 3 are similar to the costs of Option 2. There are net benefits for industry in preventive measures under the threat of disease (see Annex 2). There will be costs associated with closing footpaths around an infected premises (or if risk dictated in the protection zone) although these would be offset by containing a disease outbreak. The cost to those notifying suspicion of disease of not moving anything for a short time pending official investigation is insignificant.

(ii) Other costs

a. Costs to consumers

5.9 There are unlikely to be significant costs to consumers. The costs to businesses are not great, and therefore prices are unlikely to rise. Product choice would also remain largely unaffected because supermarkets are likely to counteract any supply shortages by increasing imports.

b. Costs to the public sector

Costs to the public sector in 'peace time'

5.10 *Poultry register.* The costs of the register are being considered in another RIA.

5.11 *Rare breeds database.* Arrangements for registering rare breeds of poultry and birds are currently under discussion. It is likely that registration will be subsumed into the poultry register or the Rare Breeds Database developed for the implementation of the foot and mouth disease Directive and not pose significant additional cost.

5.12 *Surveillance.* The cost of surveillance also impacts on the public sector. The Commission has refined the guidelines for the poultry survey each year as knowledge increases but as an example, the table below gives a breakdown of the estimated costs of the 2005/6 survey. The EU reimburses eligible costs from the EU (which in 2004 totalled £59,577 of the overall cost of £195,089).

Estimated cost of 2005 survey in UK

	Cost
Epidemiological expertise, data management and analysis etc	£91,958
Sampling equipment and laboratory kits	£3,070
SVS sample collection and administration	£81,188
SVS equipment and overheads	£17,480
Northern Ireland cost estimate	£39,382
Total	£233,078

5.13 The structure of wild bird surveillance is also evolving and the number of birds that will be sampled is difficult to estimate as it will be dependent on risk. As a rough guide the maximum expected to be sampled in 2007 is 15,000 (but more likely to be 10,000) with the cost of testing and associated laboratory costs estimated at around £270,000.

At present, some sampling is being carried out by voluntary groups as part of legal wildfowling activities, others are being collected by the State Veterinary Service or under contract to the Government (estimated cost of contract £100,00 pa). Fifty percent of eligible costs of surveillance can be recouped from the European Commission.

Costs to the public sector in a suspected or confirmed outbreak of avian influenza

5.14 The Directive also incurs costs for the public sector in a suspected or confirmed case of disease. The amount would depend on the nature of the outbreak and the extent that it has spread. The UK Government is already committed to expenditure in an outbreak of HPAI including:

- Payment of compensation for healthy birds that are slaughtered for disease control purposes under the Animal Health Act 1981;
- Slaughtering of poultry and other birds for disease control purposes and disposal costs for these birds;
- Surveillance and monitoring by the State Veterinary Service in the infected area and undertaking epidemiological tracings;
- Administrative costs such as implementing declarations, running disease control centres and setting up a communications programme;
- Official supervision and monitoring of cleansing and disinfection of premises and vehicles.

5.15 The Directive extends these costs to an outbreak of LPAI and if it becomes necessary to impose temporary national or local restrictions. Any additional costs must be offset against the far more onerous costs that would arise from maintaining the status quo with its increased risk of a rapidly spreading outbreak of HPAI.

5.16 In addition, the Directive increases public sector costs by providing for the possibility of investigations into pigs on an infected premises. However, pigs may play a role in the way the virus adapts to cause human infection. It is vital therefore to detect the virus in pigs and set the costs of doing so against the potential cost of controlling the disease in humans.

5.17 The Directive gives the option for Community and national vaccine banks. Defra is carrying out a review of vaccination.

c. Expected environmental and social costs

5.18 There would be costs in disposing of carcasses and other contaminated materials and treating waste waters.

(iii) Issues of equity and fairness including distributional issues

5.19 The measures in the Directive are a significant improvement over the existing controls both in terms of disease control and allowing flexibility for the industry.

6. Consultation with small business: the “Small Firms Impact Test”

6.1 In the event of a suspected or confirmed outbreak of avian influenza, the proposal will affect small businesses, predominantly poultry keepers but also other businesses such as zoos. Consultation was carried out with representative groups that represent the interests of small as well as large businesses during the negotiation of the Directive (including British Poultry Council, British Egg Industry Council, National Farmers Union, BIAZA, Poultry Club of Great Britain, Pet Care Trust and the Game Conservancy Trust). This continued for the transposition process.

7. Competition Assessment

7.1 The proposals are unlikely to have negative impacts on competition unless disease is confirmed (and even then it will have minimal impact on consumers). The majority of the proposals apply equally to all new and existing businesses and are similar to existing requirements for other serious diseases of livestock.

8. Enforcement and Sanctions

8.1 In the event of an outbreak, the legislation would be enforced by Local Authorities as is all existing exotic disease control legislation

8.2 The EU Commission has responsibility for monitoring enforcement by member states in order to ensure uniform application of EU legislation.

9. Monitoring and review

9.1 Monitoring of the effectiveness of the legislation will arise from regular National Contingency Plan exercises.

10. Consultation

(i) Within Government and public consultation

10.1 The Devolved Administrations have been consulted throughout the negotiation of the Directive. We have worked closely with them during the implementation phase and they have or will be implementing similar legislation.

10.2 A public consultation exercise has been undertaken on the legislative plans for implementation. 34 organisations responded to the consultation. They brought out points of detail on the draft legislation and some general concerns about the management of an outbreak, particularly on the need to keep the countryside open and the effect of an outbreak on various sectors of the industry. There was broad support for Option 3. The RIA has been revised to take account of relevant points raised during the consultation. A consultation summary with the Defra response will be available on the Defra website.

10.3 An economic assessment has been commissioned. This will give a stronger indication on how industry costs vary as a function of number of infected premises. This will be made available on the Defra website during autumn 2006.

11. Summary

11.1 The Directive being transposed by this legislation, and particularly the new controls for LPAI, allows for the potential number and size of outbreaks of HPAI to be reduced. It provides for greater flexibility in the way the controls are applied (subject to veterinary risk assessment) so as to minimise disruption to the poultry industry. It has the potential to benefit the poultry industry, the UK government and the wider economy.

11.2 We recommend Option 3 as this makes provision, as does Option 2, for the use of all available derogations under the Directive with significant benefits to industry. But in addition Option 3 includes three essential measures for the control of the disease which for relatively low cost provides net benefits to industry in terms of avoiding spread of disease.

12. Regulatory Quality Declaration

12.1 I have read the Regulatory Impact Assessment, and I am satisfied that the balance between cost and benefit is the right one in the circumstances.

Signed: Ben Bradshaw

Parliamentary under Secretary of State (Commons)
Department for Environment, Food and Rural Affairs

Date: 11th October 2006

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Annex 1 - A breakdown of holdings by species and geographical spread

1. Poultry farms in the UK⁶.

Country	No. of Poultry Farms	No. of Birds
England	34,141	136,697,761 ⁷
Scotland	5,219	15,896,813
Wales	5,345	8,688,428
Northern Ireland	1,823	20,509,000

2. Breakdown of farms by in the UK by species

<i>SPECIES</i>	<i>HOLDINGS</i>	<i>NUMBER BIRDS</i>
Fowl	43,173	147,817,426
Ducks	10,122	2,903,119
Geese	10,114	164,807
Turkeys	2,303	6,868,259
Other types poultry	6,773	3,556,691
<i>Total</i>	<i>72,485 (1823 N Ireland)</i>	<i>161,310,302 (20,509,000)</i>

3. Geographical spread of poultry farms (fowl) in England

The geographical spread of holdings in England with fowl (layers, breeders, fatteners) is:

<i>Region</i>	<i>Holdings</i>	<i>Birds</i>
South West	8,131	20,517,935
South East	4,178	13,697,332
West Midlands	3,997	18,580,002
Yorkshire and the Humber	3,665	12,247,886
North West	3,371	9,529,177
Eastern	3,090	23,140,433
East Midlands	2,875	23,382,082
North East	1,092	2,210,044
London	69	317,455

⁶ Indication only. Statistical categories differ in each country.

⁷ The poultry industry has a high turnover of livestock - the Census figures provide a snapshot and do not necessarily provide an average throughout the year.

4. Structure of the poultry industry (fowl) in England

Layers

	<i>0<100 birds</i>	<i>100<1000</i>	<i>1000<5000</i>	<i>5000<20000</i>	<i>Over 20000</i>
<i>England No. holdings</i>	24917	1522	432	509	270

Breeding fowl

England – No. holdings

<i>0<50 birds</i>	<i>50<500</i>	<i>500<5000</i>	<i>Over 5000</i>
9590	598	59	192

Fatteners

	<i>0<1000 birds</i>	<i>1000<20000</i>	<i>20000<1000000</i>	<i>Over 100000</i>
<i>England No. holdings</i>	665	152	378	337

ANNEX 2

Table A – New requirements in the Directive	Unit costs	Quantity	Scale	Source and reliability
Surveillance for LPAI			£605,000	
UK Poultry survey costs to industry	Industry time on survey - 1hr at £10/hr	Number of holdings surveyed - 446	£4,500	Working assumption
Public sector costs of UK poultry survey (before EU reimbursement)		Number of holdings included in survey and number of birds sampled (6,700 samples in 2005)	£230,000	Cost estimate submitted by Defra to EU
Estimated public sector costs of wild bird survey	Contract for sampling - £100,000 Lab and testing costs - £270,000	Number of birds sampled: 10,000	£370, 000	Defra estimate
Controls following outbreaks of LPAI on holding			Small (though significant for some individual holdings)	
Restrictions on premises while investigation takes place – industry cost	Depends on stage of production, and number of birds held	Number of holdings infected or suspected, size of holding. Length of time for diagnosis 8-13 days	May be significant for some individual holdings and supply chains (eg those supplied with meat or eggs by a restricted premises or a supplier of point of lay birds to a restricted layer unit), but likely to be small in the context of the whole industry	No estimate of costs currently available.
Slaughter of birds – compensation for healthy birds – public sector cost	Compensation depends on value of birds (£1.23 per broiler chicken), number of birds slaughtered (typical broiler flock size 100,000)	Number of holdings where slaughter takes place	Likely to be small (for example, if cull confined to one “typical” broiler unit - £123,000), and will depend on outbreak size, but may be wider impact if public confidence in products lost	
Keeper may have additional cleansing/disinfecting after slaughter and additional costs for disposal of litter etc.		Number of farms infected	Likely to be insignificant for broiler housing . Cage layer housing may have additional costs – possibly 0.5% of production costs.	
Movement restrictions – min. 1km zone around LPAI, for min. 21 days. Movement subject to licensing and conditions. Industry cost.	Depends on conditions imposed	Number of movements that require control	May be significant for some individual holdings, but likely to be small in the context of the whole industry	No estimate on application time available

Movement restrictions – min. 1km zone around LPAI, for min. 21 days. Movement subject to licensing and conditions. Public sector cost	Authorising season ticket system and designation of hatcheries (peace time cost) – £150 hatchery. £3 per individually licensed movement.	Number of movements that require control	Small	Defra estimate
Option to impose temporary national/regional/local movement restrictions on suspicion or confirmation of disease				
Low risk movement (eg table eggs, birds to slaughter) subject to biosecurity rules in general license	Biosecurity costs, inconvenience. Cost per movement estimated at £50	Number of holdings in affected area	Small	Defra estimate
Higher risk movements (hatcheries) subject to specific, season ticket license	Biosecurity costs. Cost of arranging 'season ticket'. Farmer time £10 per hour. Cost per movement estimated at £100.	Number of holdings in affected area, number of movements, stage in production cycle		No estimate on application time available.
Other high risk movements to be individually licensed	Cost of application and conditions. Farmer time £10 per hour.	Number of movements and holdings		No estimate on application time available.
Cost to public sector of control:	Authorising season ticket system and designation hatcheries (peace time cost) approx £150 per hatchery. £3 per individually licensed movement.	Number of licenses applied for. Number hatcheries for designation (approx 35)		Defra estimate
<ul style="list-style-type: none"> Hatcheries Slaughterhouses 	Cost to Meat Hygiene Service in designating (peace time cost) – estimated at approximately £300.	Number of slaughterhouses for designation (approx 100)		Estimate from MHS
<ul style="list-style-type: none"> Egg packing centres 	Cost of designating centres, approx £50 per centre (peace time cost)	Number of egg packing centres for designation (expected to be 350)		Estimate from EMI
Ability for competent authority to derogate from certain control measures following veterinary risk assessment			No net cost	

Cost to industry	Some cost in applying for derogation. Benefit of still being able to move is large for individual holdings – approx £30,000 each for broiler producers in SZ.		No net cost	
Cost to public sector	Cost of risk assessment to allow derogation	Number of derogations applied	Small	
Controls extended to captive birds			Already in domestic legislation – no cost	
Control measures for pigs (and if necessary other animals)			Small	
Pigs on infected premise subject to movement restrictions while an investigation takes place	Stage of production of pigs, value, number of movements	Proportion of poultry farms with pigs – 12% (approx 4100 farms but majority small holdings) Length of investigation 1-13 days	May be significant for some individual holdings, but likely to be small in the context of the whole industry. May be particular concerns for batch production systems of pigs and outdoor units.	
Test results may lead to slaughter and compensation, further tests or lifting of restrictions. Possible wider surveillance of pig holdings	Depends on stage of production, value and number of pigs.	Number of farms affected	May be significant for some individual holdings, but likely to be small in the context of the whole industry	
Public sector costs	Depend on extent of surveillance required, cost of tests, vet time	Number of investigations		
Provision for preventive vaccination			Options being reviewed.	

In view of the limitations of current vaccines, preventive vaccination does not form part of the current UK control strategy. There is a possibility for protecting zoological collections by vaccination. Any costs associated with this will be offset by the cost of potentially losing these birds.				
Database of commercial poultry holdings			Considered in a separate RIA	
Provision for recognition of officially registered rare breeds of poultry and other captive birds			Small	
Public sector costs	May be subsumed into poultry register	Number of birds registered	Not known yet	Costs being assessed
Industry costs	Registration will be voluntary – so no net costs. Time taken to register less than 1hr/£10. Costs offset by benefit from eligibility for derogations (eg may not be required to slaughter)		No net cost	
Additional measures for Option 3				
Powers to introduce preventive measures key of which are to separate poultry from wild birds if significant risk of disease spread			Cost will only be large if controls are imposed for more than 12 weeks and free range status is lost or there are no suitable facilities for housing the birds.	

Egg producers	<p>If producer can keep free range status for 12 weeks (and therefore price premiums) unit cost will be very small.</p> <p>If FR status is lost then eggs will lose price premium – producers would lose approximately £0.28 per bird per month. For a unit of 15,000 birds this represents a loss of £4,200 per month.</p>	Assumes large area affected, sufficient barn capacity for 25% of laying hens. May be much smaller area affected.	Although barn systems typically have lower production costs than free range, in the case of birds being brought inside from a free range these lower costs are likely to be offset by reduced egg production while the flock adjusts to being indoors. Only if housing lasts for more than 12 weeks are costs likely to be significant for most producers.	Defra estimate
Broiler producers	Impact negligible (assuming sufficient barn facilities available and status is kept)	Approx 3-4% of broiler producers are free range	Negligible (if status is kept and facilities are available)	
Game industry	Some additional costs for netting and nipple drinkers	Number holdings.	Seasonal but high loss of income if birds cannot be released. Knock on effect on shooting industry.	Information from industry.
Power to ban bird gatherings if significant risk of disease spread				
Gatherings under general licence if risk status of UK is low. Industry cost.	May be some additional record keeping and biosecurity. Notification of gathering to local Divisional Veterinary Manager less than 1hr/£10.	Number of gatherings.		Working assumption. No estimate available.
Gatherings subject to individual licence if risk to UK increases. Industry cost.	Depends on conditions imposed. Possible that gatherings may have to be cancelled. Application for licence - hr at £10/hr. May be additional record keeping and biosecurity.	Number of gatherings. Number of licenses applied for.		No estimate available for cancellations and application process.

Powers to close footpaths in a PZ following veterinary risk assessment			Small	
Number of footpaths closed will be small. Likely to be limited to paths around infected premises – path useage displaced to open paths. It is government policy to keep the countryside open for business. Public cost	Closing footpaths directly around or through a suspect or infected unit likely to be negligible (total closed unlikely to exceed 5km)	Number of premises affected, number of kms closed, number of users	Negligible	
Local business cost	Expected to be approx £250/month in lost tourist revenue.	Number of PZs, number of local businesses affected, duration restrictions	Small - £250/month	
Public sector cost	2 hrs/km, £27.10 per hour of Local Disease Control Centre admin. personnel time therefore £54.20/km	Depends on number of kms closed	Small - £250/month	
Requirement for those notifying suspicion of disease not to move anything from suspect premises pending official investigation.			Negligible	
Industry cost	This is part of existing disease control legislation and does not represent a new burden. Official investigations of suspect disease are high priority and as a general rule take place within two hours of the notification. Cost to the keeper is therefore insignificant.		Negligible	

ANNEX 3

Scenario

The following is a scenario to illustrate the possible costs and benefits of Option 3, as compared to Option 1, in a single unit outbreak of HPAI, spread by wild birds to a free range flock.

It is assumed that birds are not vaccinated, and that there are no pigs on the affected premises (only 12% of poultry farms have pigs, so keeping pigs and poultry on the same unit is not typical).

Situation under Option 1	Situation under Option 3	Additional Option 3 scenario - peacetime	Additional Option 3 scenario - outbreak	Significance
HPAI is detected in a flock of free range birds, and the authorities are notified by the bird keeper	HPAI is detected in a flock of free range birds, and the authorities are notified by the bird keeper	-	-	-
Inspectors arrive	Inspectors arrive	-	-	-
		-	-	-
No GB restricted zone declared on suspicion or confirmation of disease	GB wide restricted zone imposed for 7 days with movement controls. Zone reduced as surveillance gives more information on disease spread. Derogation is available to allow movement under licence, subject to risk assessment. Low risk movement is subject to general licence (ie table eggs), higher risk movement (ie hatcheries) licensed on a season ticket system, high risk movement (ie those not meeting the biosecurity of	Public sector cost of designating hatcheries (£150 per hatchery.) Public sector cost of designating slaughterhouses (£300 per slaughterhouse) Public sector cost of designating egg packing centres (£50 per packing centre)	Cost: Assume 1 general license movement pw (biosecurity, inconvenience etc £50). Approx 12,000 significant commercial poultry units in GB - £0.6m to farms. Hatcheries to be licensed under season ticket but have similar biosecurity etc. to that already required. Assume £100/movement. Poultry to slaughter and table eggs likely to be able to move from RZ under general licence with similar biosecurity to that already required.	Cost to industry in outbreak approx £600,000

	general licence) is licensed individually.			
A 3km radius PZ and a 10km radius SZ is imposed for 30 days and movement restrictions come into force in these areas.	A 3km radius PZ and a 10km radius SZ is imposed for 30 days and movement restrictions come into force in these areas. Derogations are available to permit movement under license where it would not hinder disease control	N/A	<p>Biosecurity costs (approx £200) offset by gain from liberalisation of movement restrictions in PZ and SZ.</p> <p>Benefit : Saving the costs of more limited movements in these areas. Using Defra statistics several potential infected holdings were randomly generated, and then the number of other units within 3km and 10km of the infected unit was calculated. A “typical” 3km PZ would contain 1 egg laying unit and one broiler producing unit. Within the SZ there would be 26 laying units and 3 broiler units.</p> <p>Under Option 1 broiler producers in the PZ could only send birds to slaughter in the infected area, and the meat would be marked (and thus lose value). This is estimated to cost the producer approximately £30,000. Within the SZ the birds could go outside the zone, but meat would still be marked for first 15 days, again costing the producer approximately £30,000 each. This would be a total cost in the typical SZ and PZ of £120,000. Under Option 3 the producer benefits from being able to send birds from the SZ to any designated slaughterhouse without the meat being marked – thus costs to the producer would be insignificant. Birds from the PZ could be slaughtered at any designated slaughterhouse,</p>	Net benefit to producers of £230,000

			<p>but the meat would be marked and separated, and thus still cost the producer approximately £30,000. Thus under Option 3 there is an overall saving of £90,000 to producers compared to Option 1.</p> <p>The costs to hatcheries of option 1 (chicks in the PZ killed off, those in the SZ can only move to units in the infected area with no other poultry for the first 15 days) would be approximately £140,000. Option 3 cost of season ticket movement (£100/movement) but benefit of saving £140,000.</p> <p>Ready to lay producers under Option 1 would be unable to travel outside of the infected area – meaning producers would lose revenue of approximately £3,000. Under Option 3 birds would be able to travel under individual license (cost estimated at £150/movement) outside the infected area, costing producers approximately £1800. Thus there is a small net benefit to producers under Option 3 compared to Option 1.</p>	
Footpaths remain unaffected	Footpaths surrounding or running through the unit are closed (likely to be less than 5km of footpath within 2.5km ²) for one month.	N/A	Assume 2 hrs/km, 5 km, £27.10/hr therefore approx £250 public sector cost. Cost to public, local business etc estimated at £250.	Small cost to local business £250, small cost to public sector £250

No restriction under Option 1	Captive birds are required to be separated from wild birds across GB eg. free range birds to be housed/netted until surveillance determines risk.	May be imposed if risk increases even without an actual outbreak, in which case the costs detailed on the right would be incurred.	Little cost as outbreak/restrictions assumed to be less than 12 weeks and free range status can be kept. It is thought that capacity is available. However for a minority of keepers housing birds may prove difficult and costly. Costs to game industry will have impact depending on season.	Insignificant cost for most sectors
The infected birds, and their dangerous contacts are slaughtered	The infected birds and their dangerous contacts are slaughtered. Registered rare breeds may be exempted from slaughter, on the grounds that disease control will not be adversely affected.	Cost of registering rare breeds - £10/collection to owner, £10/collection to public sector, therefore £20 overall cost	Benefit of not slaughtering rare breeds – value of a typical collection of rare birds. Most will register yet never be under threat of slaughter, but registration is voluntary and so if the keeper did not derive benefit (perhaps from greater peace of mind) they would not choose to register.	Net benefit
				Overall benefit of the directive is the reduction of the risk of HPAI being spread from the single infected unit to other farms.