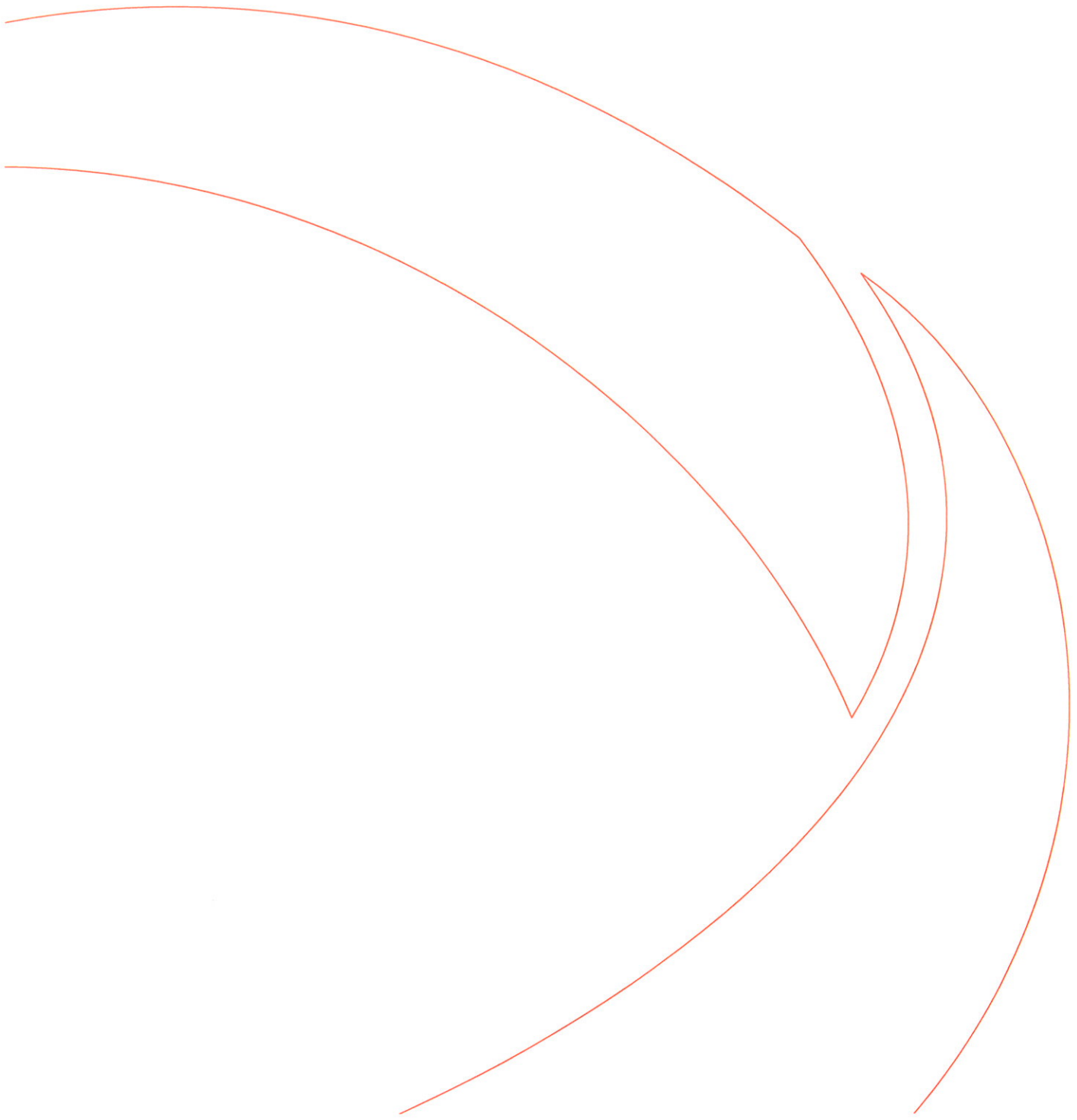


Report on the work of the Godstone Multi-Agency Implementation Committee

November 2011





Foreword

In June 2010, the report of the Independent Investigation Committee into the major *Escherichia coli* O157 outbreak at Godstone Farm in Surrey in 2009 was published. The investigation report made 43 recommendations to a variety of organisations with a view to reducing the risk of future farm-related *E. coli* O157 outbreaks.

For the past year, representatives of the farming industry, voluntary sector and public sector organisations have been working together to help ensure that the lessons from the outbreak are learnt.

The independent investigation analysed the handling of the outbreak and the regulatory framework surrounding prevention and response. In the foreword to the report, the Chair of the investigation committee, Professor George Griffin, noted that the implementation of the recommendations would require '*leadership, co-operation and clear thought between the relevant agencies*'.

Over the past year, the industry and the agencies involved have risen to this challenge, so that the learning from the Independent Investigation could be translated into sustainable good practice. As its Chair, I would like to thank the members of the Godstone Multi-agency Implementation Committee for their exceptional commitment to working collaboratively to take forward the recommendations.

This work has taken place against a background of significant changes across the public sector, which have meant that not all the recommendations could be delivered in the way that the Independent Investigation Committee proposed. There have been substantial changes in the environment for regulation as the coalition government sought to revise the scope of regulation under its 'better regulation' agenda. The year has also seen a reduction in public sector budgets, and this will inevitably impact on the resources available both to implement the recommendations and to sustain the improvements in the longer term.

The implementation committee's formal task finishes with the submission of this report, but members will continue to work together to embed the improvements and, in doing so, help safeguard public health. I am pleased to present this report to the Board of the Health Protection Agency.



Dr Ruth Gelletlie

Chair of the Godstone Multi-agency Implementation Committee

November 2011

Executive Summary

In September 2009, following the major *Escherichia coli* O157 outbreak at Godstone Farm, the HPA established an Independent Investigation Committee under the Chairmanship of Professor George Griffin. The committee was asked to analyse the events of the outbreak and make recommendations to reduce the risk to open farm visitors in future and to improve the health protection response to future outbreaks.

The Committee published its report in June 2010, with 43 recommendations to a variety of authorities and bodies with a role in helping to prevent and control farm related *E. coli* O157 outbreaks. In response to the report the HPA set up a multi-agency committee to bring together the responsible authorities to take forward the recommendations.

This is the report of the multi-agency committee's work over the past year. The first two chapters set out the background and details of the multi-agency committee's membership and how it worked. The next chapter explores the impact of changes in policy, and organisation and resourcing of the public sector, which the new government have introduced. Chapter 4 presents an overview of progress in taking forward the recommendations.

From the start, the industry and the agencies have shown exceptional commitment to taking forward the recommendations together, so that the learning from the Godstone Independent Investigation could be translated into sustainable good practice. Thanks to this commitment, the work plan which the multiagency committee established to take forward the recommendations has been substantially achieved, although the significant changes across the public sector on the past year have meant that the not all the recommendations could be delivered in the way that the Independent Investigation Committee proposed.

The final chapter of this report looks to the future with some proposals for sustaining the implementation work beyond the lifetime of the committee. The production of an industry code of practice is making good progress and is hoped that this will be completed in spring 2012. Also, work will continue on joint training at local level between the industry and agencies to build a shared understanding of what good practice looks like. Finally the members propose to meet once a year for an update, ahead of the new open farm season.

Details of the actions taken on each of the forty three recommendations are given in the Annex 1; information on the members of the committee is provided in Annex 2.

1 Introduction and background

- 1.1 This is the report of the multi-agency committee set up by the Health Protection Agency (HPA) to coordinate and oversee the implementation of the recommendations of the *E. coli* O157 Independent Investigation Committee (the committee). The report, which will be presented to the HPA Board in November 2011, describes the progress achieved by the multi-agency committee and the member organisations.
- 1.2 During August and September 2009 there was a large outbreak of *Escherichia coli* O157 (*E. coli* O157) among visitors to Godstone Farm in Surrey. This was the largest outbreak of *E. coli* O157 linked to an open farm to have occurred in the UK, with 93 people affected.
- 1.3 In September 2009, the HPA announced it was establishing an independent investigation under the chairmanship of Professor George Griffin. The purpose of the investigation was to analyse the events of the outbreak and make recommendations to reduce the risk to those who visit open farms of contracting *E. coli* O157, and to improve the health protection response to future outbreaks of this infection.
- 1.4 The committee published its Report in June 2010 making 43 recommendations to the organisations with specific responsibilities in relation to helping to reduce the risk of *E. coli* O157 infection at open farms – the responsible authorities. In addition the report recommended that a multi-agency implementation committee be set up, coordinated by the HPA, to ensure that the recommendations be implemented by the responsible authorities.
- 1.5 Upon receipt of the report, the HPA chief executive asked the director of Local and Regional Services Division (LaRS) in her role as chair of the HPA's Emergency Response Development Group (ERDG) to take responsibility for ensuring that the recommendations were taken forward.
- 1.6 An action plan was agreed by the HPA Executive Group in July 2010 and a small project team was established to coordinate and oversee implementation. It was agreed that the HPA would provide the chair and secretariat for an implementation committee and submit regular progress reports to the HPA Board.

2 The Godstone Multi-Agency Implementation Committee (GMAIC)

- 2.1 In July 2010 the HPA wrote to the organisations listed in the committee's report as 'responsible authorities' and invited them to join a multi-agency implementation committee. These organisations, which include industry and voluntary sector representatives as well as the statutory agencies, all responded positively and nominating representatives to join the committee. The following organisations were represented: Department of Health, DEFRA, Veterinary Laboratories Agency (VLA), HPA, Local Government Regulation (formerly LACORS), Health and Safety Executive (HSE), Chartered Institute of Environmental Health (CIEH), National Farmers Union (NFU), the National Farm Attractions Network (NFAN) representing the open farm industry, and the Haemolytic Uraemic Syndrome Help (HUSH), representing public interest groups. A list of the members is attached as Annex 2.
- 2.2 Since the committee, known as the Godstone Multi-Agency Implementation Committee (GMAIC), was established, there have been a number of changes to several of the organisations represented. These are described in Annex 2.
- 2.3 In addition, early contact was established with the devolved administrations though the UK Health Protection Oversight Group with the final minutes of meetings and papers of the GMAIC being forwarded to the DA members of this group. Contact was also established with the Scottish VTEC/ *E. coli* O157 Action Group.
- 2.3 The GMAIC met for the first time in August 2010 and agreed its purpose, terms of reference and ways of working. The purpose was to oversee the delivery of the multi-agency recommendations from the committee by ensuring a coordinated approach to the implementation of recommendations.
- 2.4 The members agreed that each individual organisation would be responsible for delivering the recommendations ascribed to them in the committee's report. The GMAIC's role was to support the coordination where recommendations required input across organisations.
- 2.5 The GMAIC reviewed the recommendations and agreed those that it would work to deliver within a year. The members agreed that there were some key recommendations which should be tackled first as a matter of priority, and foremost among these was the review and revision of the underpinning HSE guidance, Agriculture Information Sheet 23 (AIS 23). This guidance would then set out standards to support both the industry and the regulators, and provide the basis for developing clear and consistent messages to help the public play their part in reducing the risk of *E. coli* O157 infection.
- 2.6 The GMAIC decided that that the best way to take forward the objectives would be to share the work by grouping the recommendations into four cross-cutting themes.

Each theme was assigned by a subgroup chaired by a member of the GMAIC. The subgroups developed and implemented a work plan, reporting regularly on progress to the whole committee. Several subgroups extended their membership to support delivery of their remit.

- 2.7 In this way the GMAIC has made great strides towards completing its work within the year. From the beginning all the members have worked hard together to take forward the recommendations to help safeguard public health.
- 2.8 The output of the committee's work is described in detail in Annex 1, where each of the 43 recommendations is considered individually.

3 The impact of changes in the public sector

- 3.1 Over the past year, the coalition government has introduced many changes across the public sector. Some of these have impacted on the feasibility of implementing some of the committee's recommendations and this impact is discussed below.
- 3.2 Generally, there have been substantial changes in the environment for regulation in the past year as the coalition government sought to revise the scope of regulation under its 'better regulation' agenda.
- 3.3 A second important change has been the reduction in public sector budgets. In his June 2010 Budget, the Chancellor announced average budget cuts for government departments of 25% in real terms by 2015. As a result, all of the public sector organisations on the GMAIC are experiencing continuing reductions in their budgets, and this will inevitably impact on the resources available to implement the recommendations and to sustain the improvements in the longer term.
- 3.4 For example, as a consequence of the financial pressures in local government, Local Government Regulation, formerly LACORS, is no longer in operation. Policy work relating to regulatory services is now led by the Local Government Association (LGA), with support from a small Regulatory Support Unit (RSU). The RSU was established by the LGA with support from some central government departments and agencies, including the HSE.
- 3.5 Some local authorities (LAs) are having to make cuts in their environmental health teams and are seeking guidance about their statutory responsibilities in relation to prevention and control of communicable diseases, as they consider how best to focus their diminishing resources on fulfilling their key statutory duties.
- 3.6 A third more specific change was the announcement by the Employment Minister in March 2011 of proposals for changes to Britain's health and safety system, designed to support the government's growth agenda and to ease the regulatory burdens on business. The new framework, *Good Health and safety, Good for Everyone*, set out the measures by which these changes would be achieved.
- 3.7 Among other things, the regulators (HSE and the local authorities in Great Britain) will now focus on higher risk areas/industries (e.g. the chemical and offshore sectors), on dealing with serious breaches of health and safety regulation, and on tackling rogue health and safety advisers. These measures will result in a substantial reduction (in the order of 33%) in the number of (proactive) inspections carried out by regulators in other sectors; including visitor attractions. Businesses found to be in serious breach of health and safety law will also be expected to bear the related costs incurred by the regulator. Application of a cost recovery principle will act as a deterrent to those who would otherwise fail to meet their (legal) obligations and create a level playing field for those who do.

3.8 Taking these factors together, the ability of LAs to carry out this work in future will be a function of a number of related issues including in particular:

- Future resources – including both staffing levels and the ability to maintain the necessary skills and competences of staff;
- The availability of appropriate and necessary support and support mechanisms including advice, networking and sharing experiences with health protection colleagues.
- Competing inspection priorities at the level of individual local authorities.

3.9 To help mitigate the impact of the reduced budgets, LAs are working to find alternative methods of service delivery, such as shared services with neighbouring authorities.

3.10 The fourth important change is that the whole of the health sector is undergoing major reorganisation, with proposals being developed to restructure the way in which the public health elements are organised and delivered. Under these proposals a new national agency, Public Health England, will be established to replace the HPA. Primary care trusts will be abolished and many of their public health functions transferred to LAs, along with directors of public health. Initially it was planned that these changes would be implemented by April 2012, but many have now been put back until April 2013. However a combination of reductions in resources and transitional changes across the public sector has meant that in some parts of the country, health protection units (HPUs) already need to invest more of their resources to sustain the level of partnership working that underpins high quality public health protection.

3.11 **Impact on the agricultural sector**

The National Farmers Union (NFU) and the National Farm Attractions Network (NFAN) have been keen to engage with the work of the GMAIC to protect public health. They have highlighted how the changes outlined have the potential for wide ranging effects on the agricultural sector, particularly with regard to the level of support provided in relation to safety standards in small farm businesses. These effects will be felt through the change in focus of the HSE and other agencies away from providing best practice guidance, the reduction in resources available locally to help farm businesses (including open farms) comply with their legal responsibilities and the increased incentive to pass the costs for enforcing regulations onto farms. The industry continues to recognise the importance of avoiding ill health at farm attractions and is working towards an industry code of practice to help farmers and farm attraction managers recognise and reduce the risk of infection.

4 Progress on taking forward the committee's recommendations

4.1 The Committee made 43 recommendations, grouped under five headings; Identification and Control of Outbreaks, Risk Perception, Risk Assessment and Risk Management Regulation, Inspection and Standards Awareness, Education and Training Further Research. This section presents an overview of the progress on each group, with full details given in Annex 1.

4.2 Identification and control of outbreaks

Most of the 12 recommendations under this heading focused on the operational response to cases and clusters of *E. coli* O157. Many of the recommendations were to the HPA and even before the GMAIC was established these were already being addressed. It was agreed that the process would continue and that the GMAIC chair, who was also leading the HPA internal work, would report on progress to the GMAIC.

4.2.1 In November 2009, the HPA had set up a time-limited programme, the High Quality Service Delivery (HQSD) Programme, to ensure safe incident and outbreak management. This programme was a key vehicle for the development of ways of working and policies that underpin the implementation of the recommendations. Working with the HPA's Gastrointestinal Infections Programme Board, the HQSD team led the development and implementation of a comprehensive manual for the investigation and management of cases and outbreaks of all Verocytotoxin producing *E. coli* (VTEC), using an innovative approach based on key health protection actions for each step of a typical incident pathway. The guidance was developed by the professionals responsible for investigation and management of incidents. It is now embedded in the web-based decision support system, HPZone, so that it supports teams in real-time with risk assessment and decision making while they are responding.

4.2.2 The HPA also led on the production of guidance for laboratories and clinical healthcare practitioners, working with relevant partner organisations to ensure ownership and implementation.

4.2.3 In addition there were recommendations about the way in which LAs and local HPUs worked together. To address these, HPA, CIEH and LGR developed and disseminated a model Memorandum of Understanding (MoU), to help clarify roles and responsibilities of LAs and HPUs. The implementation of the MoU is being taken forward at local level.

4.2.4 A recommendation (no.11) to review a key piece of guidance on public health roles and responsibilities, HSG (93) 56, has not been taken forward. The DH reports that this matter is being dealt with as part of the current reorganisation of public health responsibilities.

4.3 Risk perception, risk assessment and risk management

- 4.3.1 The seven recommendations in this group were focused on the importance of owners and regulators working together to assess the risks involved and the key means by which these risks could be reduced.
- 4.3.2 With regard to the recommendation (no.13) relating to the risk rating used to inform the regulatory approach. HSE and LACORs/LGR/LGG, having reconsidered the approach, remain of the view that while the hazard i.e. the potential for individual cases of infection, particularly those involving young children or the elderly, can be very serious for those affected, the risk (i.e. probability of infection) needs to be seen in the context of a historically very low incidence of infection at open farms. In that context, and in the absence of evidence of a substantive increase in the incidence of infection in Great Britain, they consider the risk of infection to be low and that it can be adequately controlled to levels and in ways which are acceptable to society by applying the existing regulatory regime, including some proactive inspection, and by duty-holders implementing the established measures set out in Agriculture Information sheet (AIS) 23.
- 4.3.3 As a result, HSE and LACORS/LGR/LGG proposed addressing the risk of infection through the application of the existing regulatory regime, and supporting duty holders to implement the control measures set out in the revision of their extant guidance, AIS 23 guidance (see 4.4.5 below)
- 4.3.4 Other recommendations in this section related to the need to improve public education and ensure that visitors to open farms had clear information about the risks and how to avoid them. The GMAIC established a subgroup to take forward all the recommendations relating to public information and education and this subgroup worked with a wide range of stakeholders including the industry, voluntary sector bodies, groups producing educational materials and representatives of the public. Details of the outputs are given in Annex 1 and these include a package of materials for open farm owners and educational materials for schools.

4.4 Regulation, inspection and standards

- 4.4.1 The 11 recommendations in this section were aimed at reducing the risks of infection through regulation and inspection and by working with the industry to raise the standards and develop an accreditation scheme for self-regulation. A GMAIC subgroup, the guidance and enforcement subgroup, took these important recommendations forward.
- 4.4.2 The committee recommended that HSE should take the lead in developing an Approved Code of Practice (ACoP) for the Open Farm industry. The HSE Board considered this recommendation on 23 February 2011 and confirmed that the development of an ACoP should not proceed.
- 4.4.3 The HPA Board, when informed of this decision, registered its concern that a key recommendation of an independent investigation which it had commissioned, and whose recommendations it had endorsed in the interests of protecting

people's health, had not been taken forward by the HSE. However HSE considers an ACoP would:

- Be an inflexible mechanism for dealing with emerging knowledge or future technical developments.
- Confer little regulatory advantage (over existing guidance) in managing the risk of *E.coli* O157 infection at open farms where the key control measures are relatively straightforward.
- Be impracticable in the current better regulation environment.

4.4.4 Given the HSE Board's decision, the GMAIC agreed with the guidance and enforcement subgroup's proposal that alternative means, such as the development and dissemination of advisory notes, guidance and industry sponsored codes of practice through membership organisations should be pursued.

4.4.5 An important task for this subgroup was to support the HSE with the revision of their extant guidance, Agriculture Information Sheet (AIS) 23, and to use the new guidance to support the industry to develop and implement good practice.

4.4.6 The GMAIC supported the move to focus the guidance on measures which needed to be taken to reduce the risk of zoonotic infections in all settings where the public came into contact with animals.

4.4.7 The revised guidance AIS 23 has been widely welcomed and extensively publicised. The contents are being used to underpin the drive to ensure a consistent approach to inspection and regulation. AIS23 also forms the basis for an initiative, taken forward by the farming industry with support from HSE, to develop an industry code of practice, to help raise standards and safeguard public health.

4.4.8 In addition to the revision of AIS 23, guidance for inspectors has also been revised in parallel and HSE have organised regional training events hosted by members of the open farm industry (and more are being planned) to highlight the revisions to AIS 23 and the guidance for inspectors to HSE and local authority officers. Others, including some open farm managers and local HPU staff, have attended these events, further widening awareness of the revised AIS 23 and how to interpret it.

4.5 Awareness, education and training

4.5.1 The recommendations in this section focused on ways to ensure that the public in particular were aware of the risk of *E. coli* infection when visiting the countryside or farm attractions, so that they could play their part in reducing the risks to themselves and their children.

4.5.2 The need for such information is clearly set out in the revised AIS 23, along with suggestions of how it should be provided. Annex 1 gives details of the some of the materials which have been produced to support public education.

4.6 Further research

4.6.1 The Independent Investigation Committee made a series of recommendations about research in relation to *E. coli* O157. Some of these recommendations have been pursued already and are described below and in detail in Annex 1. Other proposals do not fall into categories which currently are seen as high priority in terms of funding allocation, which has limited progress.

4.6.2 Following recommendation 36 the GMAIC explored the funding of collaborative applications from reference laboratories, research microbiologists and epidemiologists to examine *E. coli* O157 isolates and the molecular basis for their virulence, but to date no funding opportunities have been identified.

4.6.3 To pursue recommendation 37 the HPA has funded a project that is in progress within the Microbiology Services division at Porton. This recommendation also highlighted the need to undertake clinical research to help predict which children with *E. coli* O157 infection will develop acute kidney failure. However, it has not been possible to progress this aspect.

4.6.4 Research commissioned jointly by the FSA and DEFRA is currently examining the feasibility of introducing methods in the UK for reducing shedding of *E. coli* O157, as set out in recommendation 42. Depending on the outcomes of this feasibility study, further research into specific practices to lower VTEC carriage and shedding may follow.

4.6.5 DEFRA has also issued a further research tender which is focussed on the study of open farm practices in relation to zoonotic risks, including on-farm interventions to reduce *E. coli* O157 prevalence on open farms. This study will provide an overview of the various types of open farms and their management, and will assess practices against the standards set out in the revised AIS 23.

4.6.6 AHVLA has undertaken a literature review of the published work on VTEC viability on pasture in accordance with recommendation 43. Another piece of DEFRA research initiated in 2008 has recently been re-focused and will provide some additional information on shedding by cattle and on VTEC presence in their faeces.

5 The legacy – further work and sustaining the implementation

- 5.1 The GMAIC was very keen to explore how the partners could contribute to ensuring the sustainability of the cross-sector working that was so productive in taking forward the recommendations, particularly as all the public sector partners face reductions in their budgets.
- 5.2 The work to draw up an industry code of practice will continue, and it is hoped that this will be completed in spring 2012. The industry are leading on this and the plan is that once the code of practice has had time to bed in, the next step would be to work towards a voluntary accreditation scheme. Accreditation of open farms and their staff using the Countryside Educational Visits Educational Scheme (CEVAS) scheme adapted for visits from the public to open farms is being explored.
- 5.3 The joint training events hosted by the industry with support from HSE are an excellent model for raising standards and sharing good practice across the industry and among relevant professionals. HSE is exploring whether the learning from these can be shared, for example by producing a video, and whether the programme can be delivered in other regions if suitable farm venues can be found.
- 5.4 Opportunities for further DEFRA funding of research and development focused on *E. coli* O157 will be considered in future financial years (for which research and development budgets have been significantly reduced). Funding decisions will be guided by the findings of the research described above that is currently underway, as well as by results from other work whether undertaken in Great Britain or elsewhere.
- 5.7 The GMAIC members gave a commitment to meet annually for an update ahead of the main open farm season to discuss a media campaign and other possible initiatives and review outstanding or ongoing work. The next meeting would be held in February/March 2012.
- 5.8 Finally it is to be noted that in a paper outlining a cross-government approach to *E. coli* O157 infection, presented to the UK Zoonoses Group in September by the Department of Health, it was proposed that given the many strands of work on *E. coli* O157 infection that are ongoing, that the Scottish *E. coli* O157 Action Group should be tasked with co-ordinating actions on behalf of the UK.

Annex 1 Table of recommendations with outputs

Annex 2 Table of members (including changes to the organisations represented by GMAIC since August 2010)

Annex 1 – Implementation of the recommendations from the *E. coli* O157 Independent Investigation

Serial No	Recommendation	Responsible authority(ies)	GMAIC outputs
1	All healthcare practitioners at initial point of care or referral of a child with bloody diarrhoea should suspect <i>E. coli</i> O157 infection and should refer the patient to specialist care as soon as possible. This is particularly important in the outbreak situation	NHS (clinical services)	<p>The guideline “the management of acute bloody diarrhoea potentially caused by vero-cytotoxin producing <i>E. coli</i> in children” has been produced and disseminated. The guideline has been endorsed by the Royal College of Paediatrics and Child Health (RCPCH), The Royal College of General Practitioners (RCGP) and the Health Protection Agency (HPA) following peer review.</p> <p>It was published on the HPA website on 5/07/2011 and is available at: http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1309968515827</p> <p>The press release for this publication can be found at: http://www.hpa.org.uk/NewsCentre/NationalPressReleases/2011PressReleases/110711NewABDVTECguidanceforchildren/</p> <p>Local and regional HPA staff were made aware of the guidance on its publication, and news of its publication was reported in a number of medical journals.</p> <p>The RCGP features the guidance as a GP learning resource endorsed by the College and the British Association for Paediatric Nephrology has published the guidance in the clinical standards section of their website.</p> <p>The Department of Health sent information to primary care teams on the new guidance via their GP and Practice Team Bulletin.</p> <p>The guidance is now cited by the principal electronic library health resource sites including: The National Electronic Library for Medicine (NeLM) National Resource for Infection Control (NRIC) Child and Maternal Health Observatory (ChiMat)</p> <p>Searches for 'bloody diarrhoea' and VTEC on major internet search engines now regularly list the guidance in the top 5 recommendations.</p> <p>The current NNSDirect algorithm for giving advice when a call is received concerning a child with a diarrhoeal illness was reviewed with the National Head of Clinical Content, Knowledge and</p>

			<p>Information Development.</p> <p>It has been confirmed that this algorithm:</p> <ol style="list-style-type: none"> 1) Checks for the presence of blood, even if this information is not volunteered by the caller; 2) Requires advice to be given, if bloody diarrhoea is present, that recommends immediate attendance at A&E department for children under 4 years of age, and urgent review (within 2 hours) for children older than this. <p>This is consistent with current NICE and HPA/RCPCH/RCGP advice.</p>
2	Clinical laboratories should report all presumptive cases of <i>E. coli</i> O157 infection promptly to the local HPU	NHS (laboratories)	<p>SOP distributed to clinical laboratories in Sep 2010.</p> <p>National Standard Methods issued on the National Standard Method website www.hpa-standardmethods.org.uk</p>
3	HPUs should ensure that the HPA's standard questionnaire is used to interview all cases of <i>E. coli</i> O157 infection and that this is sent promptly to the HPA Centre for Infections	HPA (HPUs)	<p>Recommendation addressed by the development and dissemination of the HPA guidance on Verocytotoxin producing <i>E. coli</i> (VTEC) Manual v2 published in Feb 2011. Link to VTEC Manual</p> <p>The VTEC Manual and the VTEC Support Document were produced by the VTEC working group of the Health Protection Agency (HPA) Gastrointestinal Diseases Programme Board, working through the High Quality Service Delivery Programme (HQSD - an HPA-wide programme, established by the HPA Executive Group to ensure that robust, agency-wide organisational systems are in place to support the HPA's frontline work). VTEC outbreaks are commonly caused by <i>E. coli</i> O157 but the guidance and recommendations are generic for bloody diarrhoea and HUS.</p> <p>The HQSD programme also included development of the associated <i>E. coli</i> O157 Laboratory SOPs.</p> <p>These materials are publically available on the HPA's website and are in regular use by local HPUs, where they are linked to HPZone, the web-based decision support and incident management system</p>
4	HPU staff should be required to log every case of <i>E. coli</i> O157 on HPZone as a matter of	HPA (HPUs)	<p>Recommendation addressed by the development and dissemination of the VTEC Manual</p> <p>The functionality of HPZone has been reviewed and proposals for further technical developments have been developed and will be implemented, subject to resources being made available.</p>

	urgency and routine, and the technical functionality of HPZone should be reviewed.		
5	All HPUs and EHDs should have robust handover arrangements in place, during working hours and out of hours, to ensure that details of recently reported <i>E. coli</i> O157 cases are communicated to the relevant staff	HPA (HPUs), LAs (EHDs)	<p>HPA led the development with CIEH and LGR of a model MoU to support the development of robust arrangements between every LA and their local HPUs in relation to this and other aspects of outbreak investigation and management. A joint statement commending the model MoU between HPUs and LAs was published simultaneously by CIEH, HPA and LGG (May 2011) http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1309968678784</p> <p>It is anticipated that this model MoU will aid consistency of practice and will help with clarifying the roles and responsibilities of HPUs and LAs. HPU Directors have been asked to implement the MoU with their partners and implementation will be reviewed during half yearly reviews starting in autumn 2011.</p> <p>The GMAIC noted that LGR ceased to exist with effect from 31 May 2011. A new body, the Regulatory Support Unit (part of the LGG) has been set up, with which and through which HSE will work in future to facilitate and support engagement by LAs. Reduction in resources available to the new unit is discussed in section 3.7 of the Report and in Annex 3</p>
6	An OCT should be called by the CCDC as soon as two or more presumptive cases of <i>E. coli</i> O157 infection from different households but with a potential common link are identified	HPA (CsCDC)	<p>Recommendation addressed by the development and dissemination of the VTEC Manual</p> <p>A selection of incidents involving <i>E. coli</i> O157 has been examined consecutively and this has demonstrated that current practice is within the guidance set out in the VTEC manual. This will be subject to regular review.</p>
7	The first OCT meeting should specifically assess the ongoing risk to the public, consider what control measures are available, decide which activities should be prohibited or improved, and should identify who is	HPA (OCTs)	<p>Recommendation addressed by the development and dissemination of the VTEC Manual</p> <p>A selection of incidents involving <i>E. coli</i> O157 has been examined consecutively and this has demonstrated that current practice is within the guidance set out in the VTEC manual. This will be subject to regular review.</p>

	responsible for ensuring each of its decisions are implemented		
8	The OCT should ensure that hypotheses with a clear focus on identifying the source and mechanism of spread of the infection are tested, wherever possible, by means of an analytical epidemiological investigation, and that this is carried out as a matter of urgency	HPA (OCTs)	Addressed via VTEC Manual A selection of incidents involving <i>E. coli</i> O157 has been examined consecutively and this has demonstrated that current practice is within the guidance set out in the VTEC manual. This will be subject to regular review.
9	The first OCT meeting should discuss and agree an appropriate communication strategy for professional colleagues, the public and the media	HPA (OCTs)	Addressed via VTEC Manual A selection of incidents involving <i>E. coli</i> O157 has been examined consecutively and this has demonstrated that current practice is within the guidance set out in the VTEC manual. This will be subject to regular review.
10	Animal contact, especially with ruminants, should be prioritised as the activity to be closed at the earliest suspicion of a farm-related <i>E. coli</i> O157 outbreak	HPA (OCTs), LAs (EHDs)	Addressed via VTEC Manual A selection of incidents involving <i>E. coli</i> O157 has been examined consecutively and this has demonstrated that current practice is within the guidance set out in the VTEC manual. This will be subject to regular review.
11	HSG(93)56 (<i>Public health: responsibilities of the NHS and the roles of others</i>) should be revised to bring it up to date and jointly	DH	Work on revising this HSG has not been taken forward during the year, but Department of Health points out that new roles and responsibilities for dealing with public health will be defined as part of the establishment of Public Health England (PHE). The roles of LA environmental health staff in the investigation and management of outbreaks will also need to be clearly articulated alongside the roles of PHE, to bring the guidance up to date.

	circulated to all local authorities		
12	Every LA should ensure that a senior post has been identified with responsibility for managing the LA's participation in outbreak control	LAs	The model MoU described in 5 above sets out this expectation and has been shared with LAs by LGR and CIEH. However the GMAIC noted that the model MoU is not a legally binding document and it is being taken forward through partnership work at local level, led by HPUs. Monitoring of implementation of the recommendation by LAs is beyond the scope of the GMAIC.
13	There should be a reassessment of the risk of E. coli O157 infection as 'low'. Its probability may be low but the impact is high and the consequences very severe	HSE, HPA	<p>This recommendation relates to the risk rating used to inform the regulatory approach by HSE and the LAs.</p> <p>HSE and LACORS/LGR/LGG advised the GMAIC that whilst the hazard i.e. the potential for individual cases of infection, particularly those involving young children or the elderly, can be very serious for those affected, the risk (i.e. probability of infection) needs to be seen in the context of a historically very low incidence of infection at open farms. In that context, and in the absence of evidence to suggest a substantive increase in the incidence of infection in Great Britain, they consider the risk of infection to be low and that it can be adequately controlled to levels and in ways which are acceptable to society:</p> <ul style="list-style-type: none"> • through the application of the existing regulatory regime; and • by duty-holders implementing the control measures set out in the revised AIS23 (see recommendation 14). <p>As a result, HSE and LACORS/LGR/LGG proposed addressing the risk of infection through the application of the existing regulatory regime, and supporting duty holders to implement the control measures set out in the revision of their extant guidance, Agriculture Information Sheet (AIS) 23 guidance. This approach of helping the industry take ownership of the problem and demonstrate leadership in tackling it is consistent with the Coalition Government's approach to better regulation.</p> <p>To that end HSE and LGG have been working with the industry representative bodies to develop an Industry Code of Practice (CoP), based on current advice/ guidance as to good practice; the first step in a longer term approach to addressing this and other recommendations made by the Committee. (Progress with developing the industry code of practice is referred to elsewhere – see Recommendation16).</p>

			HSE will continue to collaborate with and support LAs through the Regulatory Support Unit which has replaced LGR (see Recommendation 5 above)
14	Public education on the risks of infections acquired by animal contact needs to be reinforced, both before and during the farm visit	HPA, DH, farm owners	<p>As with many of the recommendations, the starting point here was the revision of key guidance documents clearly setting out both the risks and how they can be reduced. This new guidance was then used to develop public information, signage and specific educational material.</p> <p>Existing and new material needs to be regularly reviewed and updated and this will need to continue after the GMAIC completes its work.</p> <p>Guidance</p> <p>Following extensive consultation HSE revised their guidance, AIS23, which is aimed at owners and managers of farm attractions who have duties under health and safety law. It describes the measures they need to take to protect visitors and staff from illness. It includes a supplement for teachers and others who organise visits for children. The updated leaflet provides advice for the public on how to enjoy farm visits safely.</p> <p>HSE information sheet - <i>Preventing or controlling ill health from animal contact at visitor attractions</i>: http://www.hse.gov.uk/pubns/ais23.pdf</p> <p>Public information</p> <p>In April 2011 HPA/DH/</p> <p>DEFRA updated their public information leaflet – <i>Avoiding infections on farm visits</i>: . http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1270122184581</p> <p>GMAIC then circulated these two documents widely to the farming and enforcement communities, with the recommendation that farm owners and operators make use of the new guidance to help them reduce the risk of visitors picking up infections from animals during visits to their establishments, and that the supplement for teachers and others who organise visits for children, as well as the leaflet, should be made available when arrangements to visit are being made or at</p>

			<p>the start of each visit.</p> <p>Signage The Federation of City Farms and Gardens has designed a set of free-to-use, highly accessible Health & Safety signs to encourage farm visitors to wash their hands. The new signs are particularly relevant for young children, people with learning difficulties or other special needs, people whose first language is not English, and children who may be reluctant to wash their hands. In addition guidance has been written to advise on best practice in writing text (information and instructions) to make leaflets and notices more accessible, and some generic advice about signs and signage.</p> <p>Education GMAIC encouraged an existing project, <i>E-bug</i> (www.e-bu.eu) to develop a lesson plan and multi-media resource for primary school children about farm visits, in conjunction with Farming and Countryside Education. The lesson plan is currently being evaluated, both qualitatively and quantitatively, in 27 schools across England. After the schools return evaluation questionnaires, necessary amendments will be made and the final version will be live on the E-bug website for the new term in January 2012. The farm animation for early years is currently live on the student site. (Also see Recommendation 33)</p> <p>GMAIC is exploring the possibility of developing a publically available video on hand-washing (see Recommendation 32)</p>
15	<p>Parents of children visiting Open Farms are clearly informed, before entering animal contact areas, that:</p> <ul style="list-style-type: none"> • Touching or feeding farm animals can be a source of life-threatening infection, particularly in young children • The only way to eliminate this risk 	<p>Farm owners, HSE/ LAs</p>	<p>AIS23 sets out the responsibilities of owners to ensure that visitors are clearly informed and the GMAIC has worked with relevant organisations to develop materials to support this.</p> <p>Information on the signage, education and public information work is given above (see Recommendation 14)</p> <p>Existing and new material needs to be regularly reviewed and updated and this will need to continue after the GMAIC completes its work</p>

	<p>entirely is for children to avoid contact with animals and their faeces</p> <ul style="list-style-type: none"> • It is the parent or carer's choice whether their child is allowed to touch or feed the animals • It is primarily the parent or carer's responsibility to supervise the washing of their children's hands immediately after leaving the animal contact area, before eating or drinking on the farm and after removing footwear <p>Sanitising hand gels do not provide adequate protection alone. They are not a substitute for thorough handwashing but can be of value if used as an additional measure</p>		
16	<p>In discharging their duty of care to visitors, owners/managers of Open Farms should note that:</p> <ul style="list-style-type: none"> • The farm operator, 	<p>Farm owners, HSE, LAs</p>	<p>Along with providing a practical viewpoint on the prioritisation of the recommendations from the Independent Investigation, the farming industry and farm attraction sector have communicated the work of the GMAIC, the revised guidance and new resources to farmers using their established media channels.</p> <p>To help encourage the implementation of higher standards on open farms, the industry has established a group to develop an Industry Code of Practice (CoP), taking the guidance in AIS 23</p>

	<p>the public and the regulator all have a role to play in controlling the risk of infection</p> <ul style="list-style-type: none"> • Primary control measures should be aimed at preventing public contact with faecal matter, rather than at the public washing off the faeces. This should primarily be the responsibility of the farm operator • Handwashing must be actively encouraged as the principal control measure available to the public, in order to further reduce the possibility of contamination • To support effective handwashing, facilities should be directly located at areas of high risk, such as animal contact. Facilities should provide warm water, soap and paper towels and be at the correct heights for 		<p>as the starting point. The group is made up of representatives from the National Farm Attractions Network (NFAN), Farming and Countryside Education (FACE), National Farmers Union (NFU), Federation of City Farms and Community Gardens, Countryside Foundation, Natural England, with support from HSE and LGR.</p> <p>It is anticipated the CoP will be published by April 2012.</p> <p>In the meantime the industry is working with relevant public sector bodies to help foster a consistent approach to inspection and support better regulation. Several open days for Environmental Health Officers (EHOs) and HPA officers have been hosted by NFAN/HSE at selected farms, and more are planned (for details see Recommendation 27). Sessions demonstrate examples of good practice in a working environment. A number of training sessions providing awareness to farm operators have also been organised through Farming and Countryside Education (FACE)</p>
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	<p>adults and children to use</p> <p>Animal contact areas should be supervised and visitors should be prompted to wash their hands. Staff should be trained in how to promote handwashing, and should advise the public that sanitising gels should only be used only as an additional measure</p>		
17	<p>Operational changes are to be addressed as a matter of urgency to ensure the risk of infection with <i>E. coli</i> O157 at Open Farms is kept to a minimum. Operators of Open Farms should ensure that the layout and design of public areas on the farm are such that visitor contact with animal faecal matter is minimised or eliminated</p>	<p>Farm owners, HSE, LAs</p>	<p>This has been addressed through the revision of AIS 23 and advice materials.</p> <p>Guidance on farm layouts is being considered in drafting the Industry CoP</p>
18	<p>The LA processes of risk assessment should be reviewed and this should take place within the context of the inspection process and the regulatory framework. A single integrated framework should be assembled</p>	<p>HSE, LAs, supported by HPA, farm owners</p>	<p>1. LA processes are a matter for each individual LA and assessment of the risk of <i>E. coli</i> O157 on open farms needs to be made in the context of all the competing risks for which the LAs are the enforcing authority under health and safety legislation. Following the demise of LGR which provided a degree of oversight, the GMAIC is not aware that these functions are being carried forward by any particular body</p> <p>Relative priorities and the availability of resources will necessarily change over time</p> <p>2. The development of an integrated framework for use by the owner/ operators of open farms will be addressed by the development of the industry code of practice (Recommendation16)</p>

	for use by Open Farm operators and training made available to support risk assessment		
19	A review should be carried out to establish whether current inspection policy provides the HSE with sufficient knowledge of the Open Farm industry to be able to identify emerging risks; and whether the HSE strategy of using the AIS23 guidance document to provide management of the risks of <i>E. coli</i> O157 infection can be validated by information gained from the farming industry, the LA regulatory system, the HPA and the DH	HSE and LAs	<p>Given the statutory allocation of responsibility for enforcing health and safety in the industry, HSE and Local Authority representatives consider that the current inspection policy, together with involvement in HPA-led Outbreak Control Teams and relationships with GMAIC partners and industry representative bodies, address this recommendation.</p> <p>Since publication in 1998 AIS 23 has provided a practicable and enforceable basis for the management of <i>E. coli</i> O157 in the farming industry and has been used as such by HSE and the LAs. That view has been endorsed on a number of occasions by the Advisory Committee on Dangerous Pathogens (ACDP); most recently at its meeting in February 2011 when it agreed the guidance in the revised draft of AIS23.</p> <p>Research being commissioned by DEFRA will include a study of a number of open farms and their compliance with AIS23, and it is hoped that if farms are subsequently linked with an outbreak that they will be re-visited to assess if this arose due to failure to comply with AIS23 or because of issues that may need to be highlighted in the industry CoP.</p>
20	Consider how a consistent, effective regulatory approach to Open Farms should be maintained, and how the regulators seek assurance that it is consistent and effective, taking the industry's views into account	HSE, LGR	<p>This recommendation has been particularly affected by the changes introduced by the coalition government across the public sector.</p> <p>The LAs have the regulatory lead under health and safety legislation for the visitor attraction sector. A proactive programme of inspection by LAs was agreed in 2011/12. The public sector budget cuts may impact on LAs' ability to deliver this and any future programmes of inspection.</p> <p>In support of the work in 2011/12 HSE issued revised internal operational guidance to inspectors in the form of SIM01/2011/02 "Preventing or controlling ill health from animal contact at visitor attractions – Guidance on inspection and enforcement" in April 2011. This provides information and</p>

			<p>advice on inspection and enforcement action to be taken by HSE inspectors and EHOs in connection with the risk of infection with <i>E. coli</i> O157, cryptosporidium and other micro-organisms from animal contact at visitor attractions.</p> <p>LGR simultaneously agreed to issue the guidance to LAs in the form of a Local Authority Circular (LAC 41/5).</p>
21	Agree a working definition of an Open Farm in consultation with leading agricultural industry representatives	HSE, HPA, DEFRA (AH), Industry reps	The revised AIS23 focusses on the generic risks of <i>E coli</i> O157 (and of <i>Cryptosporidium parvum</i>) associated with animal contact wherever that contact may occur. Thus the emphasis is now on the pathogen rather than the type of premises and hence the GMAIC agreed it was no longer necessary to develop a definition of an open farm.
22	Bodies with regulatory or representative interests in Open Farms should collaborate to establish a register, sharing any data that is available to them separately	HSE, LACORS, DEFRA (AH), supported by HPA, NFAN, NFU	<p>The GMAIC agreed that development of a register of open farms was not feasible because of legal restrictions on regulatory bodies about sharing information. GMAIC members also considered the absence of a regulatory basis for registration would undermine and compromise any register. Additionally, none of the regulatory bodies could guarantee the availability (and the continuing availability) of the resource required to develop or maintain such a national register.</p> <p>Notwithstanding, the regulatory bodies agreed to continue to develop and build on existing ways of sharing relevant data through local partnership work.</p>
23	Authorities should help and encourage leading representatives of the Open Farm sector in fostering the development of a robust accreditation scheme for self regulation of standards at Open Farms	HSE, LACORS, HPA, Industry reps	<p>Discussion amongst Access To Farms (ATF) partners is currently taking place to determine the nature of any future accreditation system.</p> <p>Access to Farms partner organisations are: Country Land & Business Association (CLA), Countryside Foundation for Education (CFE), Department for Children, Schools and Families (DCSF), Department for Environment, Food and Rural Affairs (DEFRA), Farming And Countryside Education (FACE), Farms for Schools (FFS), Federation of City Farms and Community Gardens (FCFCG), Groundwork UK (GW), Linking Environment And Farming (LEAF), National Farmers Union (NFU), National Farm Attractions Network (NFAN), Natural England (NE), The Country Trust (CT), The National Trust (NT), and the Soil Association (SA).</p> <p>With HSE support, an Industry CoP is being developed with the intention of a final version being available in April 2012. Any future accreditation system will support the CoP and therefore any further development will necessarily take place following its publication (also see Recommendation</p>

			<p>16).</p> <p>There is potential to extend the existing Countryside Educational Visits Accreditation Scheme (CEVAS) accredited training through an additional unit with a focus on visits to farms by the general public (rather than by school groups). An assessment of need will be undertaken to determine the interest in this accredited training prior to its possible development.</p> <p>A review of the CEVAS farm accreditation element is underway and proposals are being considered for a revised scheme that has a focus on meeting the requirements of the CoP. However, the nature of this scheme will need to take into account the limited resources available for its administration and changes in the political climate.</p>
24	The content of all existing guidance touching on human health and safety at Open Farms needs to be reviewed, improved and clarified where necessary	HSE, LACORS, DEFRA, HPA, Industry reps	<p>The GMAIC considered AIS 23 to be the key health and safety guidance document in relation to control of infections on open farms. Its revision was prioritised such priority that it was published at the end of March 2011.</p> <p>In April 2011 HPA/DH/DEFRA updated their public information leaflet – <i>Avoiding infections on farm visits</i>.</p> <p>As far as <u>public</u> health guidance is concerned, GMAIC agreed that the guidelines on the investigation of zoonotic disease require revision and updating http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Zoonoses/Guidelines/</p> <p>The original drafting group have discussed revising the guidelines both as a consequence of new 2010 public health legislation which widened the scope of notifiable disease reporting and again more recently as a consequence of the merger of Animal Health and the Veterinary Laboratories Agency. However, the drafting group had to postpone the necessary revision work due to a lack of available resource in one of the key agencies. One benefit of postponing this work was it could be subsequently undertaken once the new arrangements for public health including roles and responsibilities of Public Health England were agreed, which otherwise would warrant a further round of revision</p>
25	HSE should take the lead in developing an Approved Code of Practice (ACoP) for the	HSE lead with Industry reps	The HSE Board considered the implementation of the Griffin Investigation Committee's Report in February 2011. At that time, the Board confirmed that the development of an ACoP under the Health and Safety at Work etc. Act 1974 would not be progressed.

	Open Farm industry		Therefore, where the Griffin Report recommended that regulatory controls be considered then alternative means, such as advisory notes, guidance documents and industry sponsored codes of practice through membership organisations are now being developed.
26	Clarify how prohibition and closure powers under both health and safety and public health laws should be used by EHOs and give clear advice to inspectors about the practical options relating to closure of farm premises	HSE, LGG	<p>HSE/LGR issued guidance to HSE inspectors and LA staff to clarify enforcement powers (including the use of Prohibition and Improvement Notices) in October 2009. The guidance was revised and re-issued in April 2011 and was published on the HSE website. LGG simultaneously issued the guidance to LAs in the form of a Local Authority Circular (LAC 41/5).</p> <p>Since April 2010 local authorities have been provided with wider, more flexible powers to deal with incidents or emergencies where infection or contamination of any kind presents, or could present a significant risk to human health. The revised measures are contained within the Public Health (Control of Disease) Act 1984 (as amended) and accompanying regulations. Some powers, relating to specific circumstances, can be exercised directly by local authorities. In other circumstances, local authorities can apply to a justice of the peace (JP) for a Part 2A Order to impose restrictions or requirements to protect human health.</p> <p>The legislation can be found on the OPSI website as follows:</p> <ul style="list-style-type: none"> • SI 2010. No. 657. The Health Protection (Local Authority Powers) Regulations 2010 • SI 2010. No. 658. The Health Protection (Part 2A Orders) Regulations 2010 • Explanatory memorandum • SI 2010. No. 659. The Health Protection (Notification) Regulations 2010 • Explanatory memorandum <p>Guidance on the regulations has been published by the Department of Health as follows:</p> <ul style="list-style-type: none"> • Health Protection Legislation (England) Guidance 2010 • Forms and Templates to Health Protection Legislation Guidance 2010 <p>To assist Environmental Health Officers in applying the regulations an interactive toolkit has been developed. The purpose of the toolkit is not to duplicate the Government guidance, but to provide a 'grab and go' suite of documents that can be used by authorised officers to deal with practical situations when they arise.</p> <p>Health Protection Regulations 2010 Toolkit</p>

27	<p>Review and revise staff training in conducting risk assessments, and consider the benefits of 'on the job' training with inspectors who hold agricultural expertise. Develop training in competences for EHOs involved in inspection of farm premises, in liaison with the CIEH or other training organisations that have the capacity to offer such training</p>	LACORS, LAs, HSE, CIEH	<p>The revision of AIS23 http://www.hse.gov.uk/pubns/ais23.pdf was published at the end of March 2011 and widely disseminated.</p> <p>To support publication of the revised guidance the National Farm Attractions Network (NFAN) and HSE arranged two half day training sessions at an open farm in Bedfordshire for agencies which have enforcement responsibility for visitor attractions. The training covered:</p> <ul style="list-style-type: none"> • The requirements of the revised AIS 23 http://www.hse.gov.uk/pubns/ais23.pdf • Revised guidance on inspection and enforcement http://www.hse.gov.uk/foi/internalops/sectors/ag_food/011102/index.htm • Presentations by Animal Health and Veterinary Laboratories Agency on the animal health aspects of zoonoses; • A presentation by HPA on the role of Outbreak Control Teams; and • The opportunity to look at the issues on the ground at a visitor attraction. <p>The training is aimed at:</p> <ul style="list-style-type: none"> • Local Authority Inspectors • HSE inspectors • HPA/HPU staff who may be involved in outbreak investigations <p>Further similar events are planned in 2011/12. Any subsequent training events will take account of feedback but will be subject to the availability of funding, suitable premises and expert resource.</p> <p>Risk assessment is a fundamental part of an Environmental Health Practitioners' (EHP) training. It is a key element of the Regulators' Development Needs Analysis (RDNA) Toolkit competence framework. There is no specific national work on developing competences in farm inspection for EHPs, as far as CIEH is aware, though there may be local arrangements in place as in the holding of the training days previously mentioned. CIEH understands that specific agricultural inspectorate competences were compiled and adopted by HSE as part of the wider RDNA project (see also Recommendation 18).</p>
28	<p>Publicise the availability of expert advice on agricultural health and safety and the microbiological</p>	LGG	<p>Revised internal operational instructions issued to HSE and LAs earlier this year promote the sharing of expertise and advise on the availability of support from HSE local offices.</p> <p>Access to the LGR Community of Practice web tool was widened to allow input by Health Protection Agency local Health Protection Unit staff.</p>

	hazards likely to be present on farms, and encourage sharing of expertise across LAs through the identification of 'lead inspectors' with specialist knowledge of Open Farms		<p>N.B. CIEH raised a concern that virtual Communities of Practice are unlikely to provide the level of support previously made available through LGR and that involvement is likely to be patchy. They believe that over time this is likely to weaken knowledge and competence.</p> <p>Within individual regions a range of work is on-going regarding partnership working and this is exemplified by the recent model MOU agreed by the Local Government Group, the CIEH and the HPA (see Recommendation 5)</p>
29	HSE and LACORS should continue their collaboration to provide a strong foundation for future regulation of risks from <i>E. coli</i> O157 on Open Farms	HSE, LGG	<p>HSE and LGG have collaborated closely both through and outside of the GMAIC in implementing the recommendations of the Griffin Report directed to them jointly.</p> <p>As noted (recommendation 13) LGR ceased to exist with effect from 31 May 2011. A new body, the Regulatory Support Unit (part of the LGG) has been set up, with which and through, HSE will work in future to facilitate and support engagement by LAs.</p>
30	Explore and clarify ways of working together in regulating Open Farms, and develop mutual understanding of roles, responsibilities and relationships	LGG lead with LAs, HSE, HPA, DEFRA/AH	<p>All the key bodies, including industry groups, with a role in minimising zoonotic diseases and/or their transmission to people visiting open farms have participated in the GMAIC and/or its sub-groups. Following a thorough exploration the GMAIC has agreed that the best way to mitigate future risks will be by a code of practice being drawn up by industry with input from the appropriate official bodies. This will build on the revised AIS 23. (see recommendation 16)</p> <p>Also will be taken forward by collaboration HSE/LACORS (LGR – now Regulatory Support Unit) – see above (Recommendation 29) and Recommendations 20, 26, 27, 29</p>
31	Clearly publicise the risk of infection caused by <i>E. coli</i> O157 emphasising that: <ul style="list-style-type: none"> <i>E. coli</i> O157 is frequently carried by animals, especially cattle, sheep and goats and other ruminants 	Mass media, HPA, DH, DCFS	<p>Revised leaflet "Avoiding infection on farm visits, Advice for the public" developed and circulated http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1270122184581</p> <p>Also see actions against Recommendation 14 for signage, education and public information projects and Recommendation 32 for proposed action on developing a video on handwashing to be displayed at open farm attractions and on relevant websites</p>

	<ul style="list-style-type: none"> • Infection by <i>E. coli</i> O157 may arise from contaminated food, water, from direct contact with animals or their environments • Children and the elderly are especially vulnerable and that deaths have occurred from infection by <i>E. coli</i> O157 <p>Infection from <i>E. coli</i> O157 may be reduced when visiting the countryside or agricultural environments by avoiding any contact with animal faecal matter and by ensuring that good hygiene practices are in place and followed</p>		
32	<p>Raise public awareness of the risks when arriving at a farm attraction and use a variety of means to communicate this information. The responsibility of the accompanying adult should be spelt out, emphasising the parent/carer's decision</p>	Farm owners	<p>Revised leaflet "Avoiding infection on farm visits, Advice for the public" developed and circulated http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1270122184581</p> <p>The communication and education subgroup of GMAIC believe that a short hand-washing video aimed at the general public and which could be displayed at the entrances to open farm visitor attractions, displayed on websites and used for training purposes, would be a helpful way of mitigating risk during open farm visits. The group reviewed the HSE's guidance video that was produced around 2000. It was felt this film was dated and a number of its messages were not in line with the current approach. The group is currently finding out whether there are any hand washing clips used within the DH/NHS that demonstrates the agreed technique, that could be adapted for use by open farm visitor attractions, without infringing any copyright. If no suitable</p>

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	to allow children to have animal contact		current material is found, the group will seek funding (approx £5-10k) and apply to the DH for permission to produce a short (two minute) video, that would be available for all farm visitor attractions to download in time for the 2012 season. Also see actions against Recommendation 14 for signage, education and public information projects
33	Explore ways to help farm operators communicate information on infection risks to visitors using a multi-media approach.	Industry reps, HSE, HPA, FACE	Development of new interactive information (from E-bug team of the HPAs Primary Care Unit). See Recommendation14 (Education)
34	Consider ways to increase awareness among GPs and all front line healthcare practitioners of the importance and seriousness of acute bloody diarrhoea in previously healthy children	HPA (Primary Care Unit), DH	Guideline “the management of acute bloody diarrhoea potentially caused by vero-cytotoxin producing <i>E. coli</i> in children” produced and disseminated (See Recommendation1)
35	Examine <i>E. coli</i> O157 isolates from Godstone Farm to determine their molecular characteristics	HPA	Work on <i>E. coli</i> isolates was completed and a paper drafted. However this paper was recently rejected by the Lancet. The paper will be resubmitted to the Journal of Infectious Disease,
36	Encourage the funding of collaborative applications from reference laboratories, research microbiologists and epidemiologists to examine <i>E. coli</i> O157	Research councils and government departments	The GMAIC explored this with funding bodies, but to date no funding opportunities have been identified.

	isolates and the molecular basis for their virulence		
37	Encourage research into rapid methods of microbiological diagnosis and rapid detection of renal failure and coagulopathy. High priority should be given to clinical research into predicting which children with <i>E. coli</i> O157 infection will develop acute kidney failure and into the use of monoclonal antibody directed against verocytotoxins	Medical research funding agencies, clinical research networks	<p>An internally HPA funded project is in progress within Microbiology Services, Porton which has the aim of developing antigens that could underpin the development of both polyclonal and monoclonal antibody-based therapies for complications of VTEC infection such as haemolytic-uraemic syndrome. A panel of recombinant antigens has been generated and several of these are in assessment studies with respect to their ability to generate a toxin-neutralising immune response.</p> <p>Based on this established expertise, a proposal entitled: ‘Development of an antibody-based therapy for treating infection with Vero cytotoxin-producing <i>E. coli</i>’ has been submitted for consideration under HPA’s Strategic R&D funding scheme. The project, a collaboration with NIBSC, has the aim of developing novel, recombinant therapeutic antibodies for VTEC therapy.</p> <p>Currently, however VTEC is not considered to be a priority research area. This makes it more difficult to retain funding for existing work and initiate further studies.</p>
38	Complete and publish a detailed analysis of the epidemiological and microbiological data from the Godstone Farm outbreak in the scientific literature	HPA	<p>The main epidemiology paper entitled “Large outbreak of vero cytotoxin producing <i>Escherichia coli</i> O157 infection in visitors to a petting farm in South East England in 2009” has been accepted for publication by <i>Epidemiology and Infection</i> .</p> <p>(See also recommendation 35 above)</p>
39	Carry out a full health economic assessment of the Surrey 2009 outbreak. Consider the costs of prevention to be borne by the farm industry, their insurers and the regulatory authorities and the benefits to these groups and the general public	HPA, DH, DEFRA	<p>In the current funding climate, the GMAIC discussed the “added value” that undertaking a full health economic assessment would deliver, given that detailed health economic assessments have already been done for previous outbreaks, notably in Scotland. The GMAIC was therefore of the view that resources for such a study were unlikely to be available and this was confirmed by DH.</p> <p>Furthermore the assessment of the economic costs to the insurance industry and regulatory authorities was a matter considered to exceed the GMAIC’s remit. For these reasons this recommendation has not been taken forward.</p>

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40	Devise a system for ensuring that OCT reports relating to outbreaks of <i>E. coli</i> O157 are properly collated and widely disseminated	HPA	New HPA guidance on drafting outbreak reports has been developed which will help ensure that lessons from outbreaks, including <i>E. coli</i> O157 outbreak, are identified, collated and widely disseminated.
41	Study the feasibility of vaccine control of <i>E. coli</i> O157 in ruminant animals in the UK, and identify the obstacles to its implementation	DEFRA	<p>The Scottish Agricultural College is working with the Food Standards Agency on the feasibility of the control of <i>E. coli</i> O157 in the UK. One option would be to vaccinate, but there is no vaccine with a market authorisation for use in the UK.</p> <p>Defra advises that the current UK policy is for vaccines licensed outside the UK to be brought in for use only if an application and risk analysis are submitted by the veterinarian responsible for the animals requiring treatment. There is no scope for a generic application. Any open farm could ask their veterinary surgeon to make an application to the Veterinary Medicines Directorate (VMD) [the animal equivalent of the MHRA] to import and use such a vaccination to protect human health. The fact that use of the vaccine would be to protect human health rather than animal health would not preclude VMD's approving a suitable application. As the vaccine in North America is licensed for use in feed lot cattle UK vets may be wary of applying to use it in calves and cows on open farms in the UK, and even more hesitant to vaccinate other species on an open farm under their care.</p>
42	Commission studies to identify whether the microbiological testing of cattle, sheep and goats with an enumeration of <i>E. coli</i> O157 and the implementation of farm hygiene practices is a practical means for reducing the risk of <i>E. coli</i> O157 on Open Farms	DEFRA	<p>Feasibility of introducing methods in the UK for reducing shedding of <i>E. coli</i> O157 in cattle, project OZ0715. This joint FSA/ DEFRA funded study began in 2011 and is being undertaken by SAC. It is scheduled to conclude this year. This feasibility study will engage with international experts to examine and describe the on-farm options that are available to control <i>E. coli</i> O157 in UK. Their practicality and efficacy will be examined in cost benefit analyses to quantify potential public health benefits. The outputs will include a report on the feasibility for controls, evidence of best practice and recommendations for the implementation of improved on-farm control of <i>E. coli</i> O157. The main focus is cattle on commercial farms but possible options that could be applied on open farms are also being considered.</p> <p>DEFRA has also requested bids for another VTEC related study and has received 5 tenders. A front-runner has been identified but negotiations are still being concluded to enhance the potential policy benefits of this research before it is formally commissioned. Commissioning should follow soon, and certainly before 2012. This research is focussed on the study of open farm practices in relation to zoonotic risks, and on farm interventions to reduce VTEC prevalence on open farms.</p>
43	Investigate the circumstances where <i>E. coli</i> O157 infection	VLA, HPA	This refers to the national guidance for Scotland issued in 2001 by the former Scottish Executive (now referred to as Scottish Government, SG), recommending that pastureland be cleared of livestock, faeces removed, and grass cut, 3 weeks prior to public use.

<p>animal pasture, to determine if a period of three weeks is sufficient to control the risk of infection</p>	<p>This was based on evidence and recommendations in the report of the joint Scottish Executive/Food Standards Agency (Scotland) Task Force on <i>E. coli</i> O157, published in 2001 (as detailed in Chapter 3, available at http://tna.europarchive.org/20110116113217/tna.europarchive.org/20110116113217/http://www.food.gov.uk/news/newsarchive/2001/oct/ecolitask)</p> <p>The Public Health Laboratory Service was included in the Task Force membership and was therefore party to the evidence and recommendations, as well as receiving copies of the final report – which was also widely circulated to many agencies throughout the UK and was made available on the websites of the FSA, SG, and HPS.</p> <p>The 3 week guidance (available at http://www.scotland.gov.uk/Resource/Doc/47102/0013825.pdf) was widely circulated by both Health Protection Scotland and SG, both at the time, and on repeated occasions each year since its publication in 2001.</p> <p>Both the 3 week guidance document, and the Task Force report, are included in the Health Protection Network Scottish Guidance on the Public Health Management of VTEC (http://www.documents.hps.scot.nhs.uk/about-hps/hpn/vtec.pdf), published in 2008. The Guidance Development Group included representatives from HPA and NPHS Wales; and the VTEC Guidance was also shared at both development and completion stages with the Health Protection Agency's GI Diseases Programme Board.</p> <p>Links to the 3 week guidance have also been included in various other public and professional guidance and information documents on livestock-related exposures that have been circulated by HPS from 2001 onwards, all of which contain weblinks to each other, providing multiple routes of access whatever the 'entry point'. These include, for instance, the HPS and Scottish Agricultural College "Simple Precautions" leaflet (see p2 at http://www.documents.hps.scot.nhs.uk/giz/ecoli/simple-precautions-O157.pdf) which is re-circulated at least twice yearly via HPS e-Weekly Report (which is received by various HPA staff). The bi-annual circulations of the Simple Precautions leaflet have always also included, not just professional agencies such as the Royal Environmental Health Institute for Scotland (REHIS), but also relevant activity groups for example Girl guiding UK. It is also published on the websites of some academic institutions and organisations whose members are using the countryside, thus informing a very wide range of people of the issues highlighted.</p> <p>The Scottish Government's VTEC/<i>E. coli</i> O157 Action Group is currently drafting a VTEC/<i>E. coli</i> O157 Action Plan, and the 3 week advice is amongst a number of topics that are being considered in detail during this process. The HPA and Public Health Wales CDSC are members of the Action Group, but the finalised Action Plan (and any guidance that is revised as a result) will in any case</p>
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be shared with relevant agencies outside Scotland.

AHVLA have undertaken a literature review of the published work on VTEC viability on pasture in accordance with recommendation 43. Scottish guidance recommends that a period of three weeks is sufficient to control the risk of infection in people in contact with contaminated animal pasture. VTEC survival is dependent upon numerous factors including the type of soil, the quantity of rainfall, the attachment of bacteria to soil particles, the position of the pasture with respect to direct sunlight, the quantity present in the faecal pat (as some animals are known to be super-shedders) and its ability to multiply within the first few hours post defecation (in part dependent on ambient temperature). It is apparent from the studies considered that *E. coli* O157 is able in certain circumstances to survive in faeces on pasture for greater than 21 days and given this, there is a risk (of unknown quantity) that humans may be exposed to *E. coli* O157 on pasture previously grazed by colonised ruminants after the 21 day no-grazing period has ended. Additional research would need to be commissioned to more accurately assess the risks involved, and would need to consider the following aspects:

- The survival distribution of *E. coli* O157 in spread waste and on grazing land particularly the tail of the distribution after the initial linear decline.
- The quantitative impact of leaching of *E. coli* O157 from ruminant faeces and their dispersion patterns on pasture.
- The variability in the amount of *E. coli* O157 excreted by cattle and sheep stratified by age; there are some data available on these aspects.
- The impact of super-shedders and their frequency within the herd on the quantity of *E. coli* O157 deposited onto pasture.
- The impact of survival of viable VTEC from faeces of wildlife species including those co-grazing with farm livestock (e.g. rabbits, deer, wild birds).

Annex 2. Godstone Multi-Agency Committee Membership as of December 2010

Name	Organisation
Ruth Gelletlie (Chair) Director of Local and Regional Services, HPA	Health Protection Agency
Isobel Rosenstein (Secretariat) Head of Business Planning and Reporting HPA	Health Protection Agency
Mark Du Val Director of Policy, Local Government Regulation	Local Government Regulation
Sarah Evans Food and Environmental Safety Programme Manager	Veterinary Laboratories Agency (VLA)
Andrew Frost Veterinary Adviser	Department for Environment, Food and Rural Affairs (DEFRA)
Peter Garbutt NFU Regulatory Affairs Adviser	National Farmers' Union (NFU)
Nick Gent Health Protection Consultant	Health Protection Agency
Emma Gilgunn-Jones Chief Press Officer	Health Protection Agency
Ishbel MacKinnon Secretary (HUSH) & Lay Member	Haemolytic Uraemic Syndrome Help (HUSH)
Jenny Morris Principal Policy Officer	Chartered Institute of Environmental Health (CIEH)
Karen Reddin Deputy Head of Strategic Emergency Planning	Health Protection Agency
Maggie Tomlinson Lead, Emerging Infections and Zoonoses	Department of Health (DH)
Graeme Walker Head of Agriculture & Food Sector	Health and Safety Executive (HSE)
Andrew Wolfe Director of NFAN	National Farm Attractions Network (NFAN)

Changes to the Organisations represented in the Godstone Multi Agency Implementation Committee since the Committee was established in August 2010

Health Protection Agency

The HPA has undergone internal re-organisation with a consolidation of a number of the HPA's centres and divisions. Local and Regional Services is now part of the Health Protection Services Division, which comprises local services and the national epidemiology and surveillance services.

Local Government Association (LGA) and Local Government Regulation (formerly LACORS)

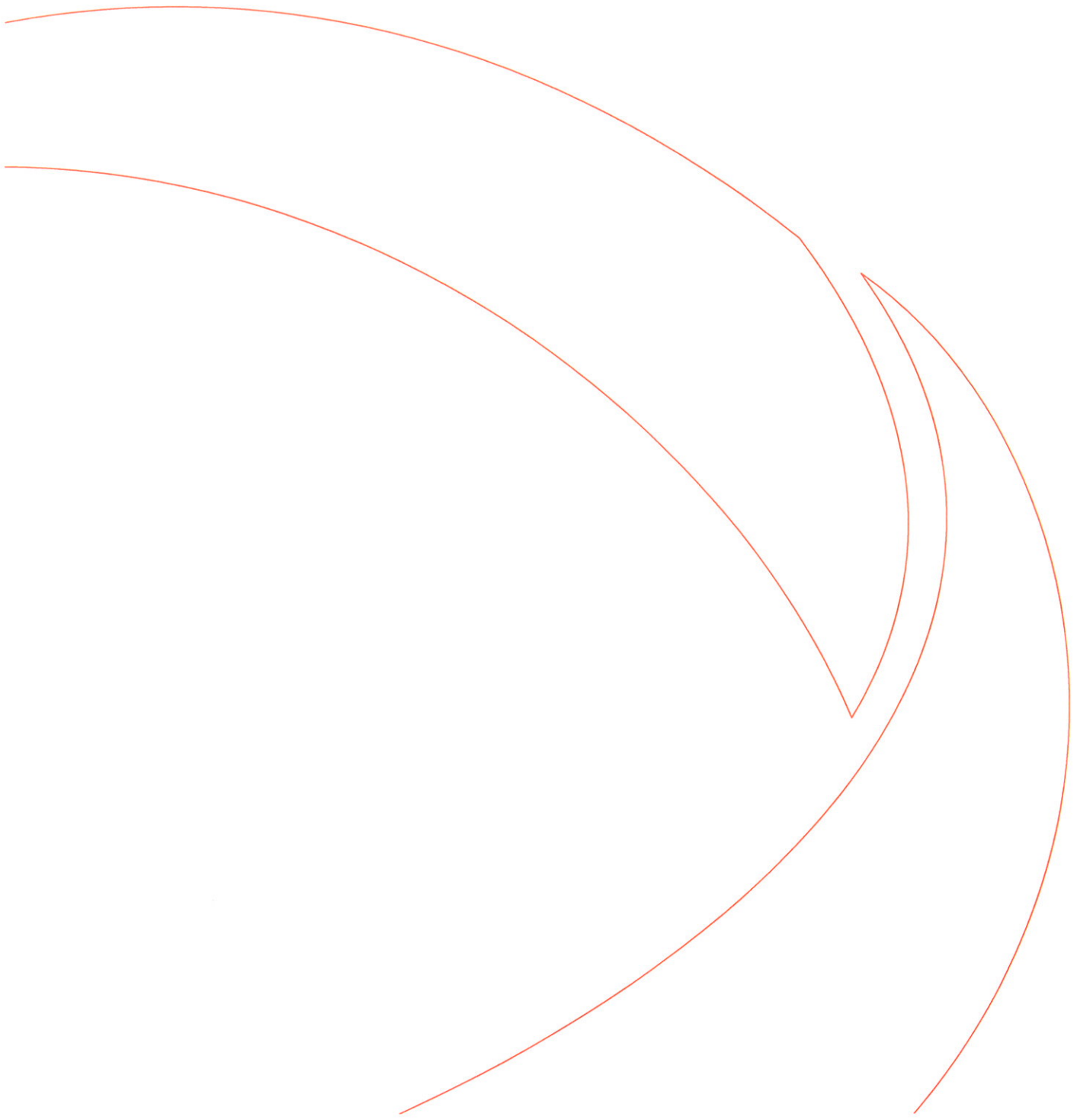
As a consequence of the financial pressures in local government, Local Government Regulation, formerly LACORS (comprising a staff of 35), is no longer in operation. Policy work relating to regulatory services is now led by the Local Government Association (LGA), with support from a small Regulatory Support Unit (RSU) comprising three members of staff. The RSU was established by the LGA with assistance from some central government departments and agencies, including the HSE.

The LGA is a voluntary membership body and the 422 member authorities cover every part of England and Wales. We work to promote, support and improve local government. The Regulatory Support Unit works with councils from England, Wales, Scotland and Northern Ireland.

Veterinary Laboratories Agency

On 1 April 2011 two of DEFRA's agencies (the Veterinary Laboratories Agency (VLA) and Animal Health (AH) were combined to create one new agency: the Animal Health and Veterinary Laboratories Agency (AHVLA). In addition to former VLA and AH staff a significant number of veterinary and scientific staff from core-DEFRA were also transferred into the new agency. Historically both agencies worked to combat animal diseases, with VLA formerly being the DEFRA agency involved in work on VTEC (although AH were also involved at Godstone).

The AHVLA has been formed to create a stronger organisation capable of providing a range of vital services to the livestock farming industry and related sectors. Importantly, the merger will increase the resilience of the combined agency's operations in a difficult financial climate. Joining the two organisations creates new and wider opportunities to identify more cost-effective, flexible and robust ways of working. AHVLA will work across Great Britain on behalf of DEFRA, the Welsh Government and the Scottish Government. It will also have some UK functions and many international roles, for example as the international reference laboratory for important farm animal diseases such as avian influenza, bovine tuberculosis, classical swine fever and TSEs. Contact points relating to VTEC investigations will initially remain unchanged in the new agency.



Health Protection Agency
2nd Floor
151 Buckingham Palace Road
London
SW1W 9SZ
www.hpa.org.uk



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