



Department
for Environment
Food & Rural Affairs

Bovine TB: consultation on proposals to manage the delivery of both badger vaccination and culling in Edge counties.

A consultation exercise contributing to the delivery of the government's strategy for achieving Officially Bovine Tuberculosis Free (OTF) status for England

May 2020



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Part A: Background

1. Purpose of this consultation

- 1.1 Badger control, both vaccination and culling, is licensed to prevent the spread of bovine *tuberculosis* (bTB). We are consulting on a proposal to manage the delivery of both vaccination and culling of badgers in the Edge Area¹ of England, especially where they take place on adjacent sites. Our proposal aims to reduce the risk of culling vaccinated badgers balanced with ensuring that culling can proceed where applications meet the licensing requirements to ensure that progress is made towards disease eradication. This consultation is part of the government's response to the Godfray Review, published in March 2020². We invite views in Part C on our proposed approach to address this situation and any other options which could be considered, and on the proposed revisions to the Guidance to Natural England on licensed badger control (see Annex B for a version of the Guidance with proposed revisions).
- 1.2 Bovine TB is one of the most pressing and costly animal health problems in the UK. It threatens our cattle industry and presents a risk to other livestock, wildlife, pets and humans. Dealing with the disease is costing the taxpayer over £100 million each year. The latest official statistics show that in the 12-month period ending 30 September 2019, more than 31,000³ cattle had to be slaughtered in England to control the disease, causing devastation and distress for hard-working farmers and rural communities.
- 1.3 The government's Strategy for achieving Officially Bovine Tuberculosis Free (OTF) status for England, published in April 2014⁴ aims to eradicate TB whilst maintaining an economically sustainable livestock industry. This complements Defra's strategic objectives of supporting and developing British farming and encouraging sustainable food production, enhancing the environment and biodiversity, managing the risk of animal disease, and the government's overarching objective of supporting economic growth. In developing new disease control interventions, we need to find the right balance between managing disease risks and managing impacts on businesses.

¹ The Edge Area sits between the High Risk Area and the Low Risk Area. It has a rising trend in incidence and prevalence of infected herds, but the pattern is highly variable across counties in the Edge. It was established in 2013 as part of the government's strategy to achieve Officially Bovine Tuberculosis Free (OTF) status for England by 2038.

² Next steps for the strategy for achieving bovine tuberculosis free status for England:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf

³ Defra TB statistics: <https://www.gov.uk/government/statistics/incidence-of-tuberculosis-tb-in-cattle-in-great-britain>

⁴ A strategy for achieving Officially Bovine Tuberculosis Free status for England:
<https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-forengland>

- 1.4 The TB Strategy is an adaptive, evidence-based, long-term approach to disease control, including badger control in areas where the disease is widespread in cattle and in badgers to complement other measures. In its response to the Godfray Review, the government has set out its ambition to move from widespread badger culling to wider deployment of vaccination, with epidemiology-driven culling only taking place where surveillance in badgers and cattle indicates re-emerging or persistent infection. This will necessitate badger culling taking place alongside badger vaccination. Recognising that this could impede deployment of vaccination, the government wants to manage this situation, whilst not making it impossible for farmers to come together and undertake licensed badger culls.
- 1.5 Bovine TB policy is devolved, and this consultation applies to England only. Details of the proposal are set out in Part B. Responses to the questions in Part C are invited by 26 June 2020. You can submit your response online:
<https://consult.defra.gov.uk/animal-health-and-welfare/badger-no-cull-zones-edge-area/>

Part B: Proposal to manage the delivery of both vaccination and culling in the Edge Area of England

2. Rationale and evidence.

Rationale

- 2.1 Disease prevalence and incidence have been on a rising upward trend in the Edge Area for a number of years, despite a significant tightening of surveillance and control measures in cattle herds in recent years. The epidemiological pattern is complex, with different drivers of bTB across the Edge Area. Some counties have a reservoir of infection in badgers while in others disease spread is driven mainly by cattle movements. Reversing the ongoing increase is a key priority. There is continual expansion and contraction of the leading edge of infection⁵, but overall movement tends to be eastwards.
- 2.2 The government's response to the Godfray Review sets out the ambition to move towards a non-lethal approach to wildlife control, whilst maintaining the option to cull where there is evidence it is needed. The response also identified the need to

⁵ Figure 3.1.6 Spread and retraction of endemic TB areas in 2018 compared to 2017
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844813/england-tb-epi-report-2018a.pdf

acknowledge that vaccination can complement culling as part of a holistic badger control programme.

- 2.3 Specifically the response outlined the government's intention to revamp the Badger Edge Vaccination (BEVS)⁶ scheme, in order to further promote deployment of badger vaccine as a barrier to future spread of the disease in the Edge Area of England. The uncertainty around where endemic infection may spread means that government would not want to prevent farmers from choosing to seek a cull licence in the future in the Edge Area. The co-existence of vaccination and culling needs to be carefully managed to facilitate deployment of both control methods in a complimentary manner.
- 2.4 The endemic infection present in badgers across the High Risk Area (HRA) means that there are currently no plans for a BEVS-type scheme to be extended to this area. The Chief Veterinary Officer of England (CVO) maintains the view that, in areas where TB is established in badgers, culling is the preferred method for badger control to achieve the 2038 target for eradication.

Evidence

- 2.5 The evidence shows that, where TB is present in badgers, there is an increased risk of the disease spreading from badgers to cattle⁷. The scientific consensus, summarised in Professor Charles Godfray's independent restatement of the evidence base in 2013⁸, is that TB spreads within and between populations of badgers and cattle. The disease spreading from badgers to cattle is an important cause of herd breakdowns in high-incidence areas.
- 2.6 A report by Downs *et al.* published in October 2019⁹ showed that intensive culls are reducing the incidence of bTB in cattle. Detailed analysis of the effect of the current culls has shown that culling implemented by the farming industry can result in statistically significant reductions in the incidence of bTB. They found that culling was associated with reductions in herd bTB incidence of 66% and 37% in the first two intensive cull areas over the first four years relative to matched comparison areas with no culling.

⁶ <https://www.gov.uk/government/publications/badger-edge-vaccination-scheme-2-bevs-2/scheme-outline>

⁷ Donnelly, C.A., Nouvellet, P (2013). The Contribution of Badgers to Confirmed Tuberculosis in Cattle in High-Incidence Areas in England: <http://currents.plos.org/outbreaks/article/the-contribution-of-badger-to-cattle-tb-incidence-in-high-cattle-incidence-areas/>

⁸ H. Charles, J. Godfray, Christl A. Donnelly, Rowland R. Kao, David W. Macdonald, Robbie A. McDonald, Gillian Petrokofsky, James L. N. Wood, Rosie Woodroffe, Douglas B. Young, Angela R. McLean (2013). A restatement of the natural science evidence base relevant to the control of bovine tuberculosis in Great Britain. *Proc. R. Soc. B* 2013 280 20131634; DOI: 10.1098/rspb.2013.1634.

⁹ Downs, S.H. and others (2019) Assessing effects from four years of industry-led badger culling in England on the incidence of bovine tuberculosis in cattle, 2013-2017. *Scientific Reports*, 9, 14666.

- 2.7 Lab-based studies were carried out to enable the licensing of BadgerBCG¹⁰ in 2010. These studies found that vaccination of badgers reduced the severity of disease¹¹. A study¹² using vaccine in the field also suggested that vaccination reduces the severity and progression of TB in badgers. An indirect protective effect (akin to a “herd immunity” effect) was also demonstrated in this study. The level of indirect protection to unvaccinated cubs increased with the proportion of vaccinated adults in the social group.
- 2.8 Models¹³ investigating different policies for badger control suggest that trapping and vaccinating 70% of the population is required to give long-term decreases in cattle incidence when accounting for the efficacy of BCG.
- 2.9 Badgers in undisturbed populations within England live in territorial social groups: social group and territory size varying according to the environment. This population structure restricts the distance that badgers generally move each day. After culling takes place, it has been demonstrated that the territorial social structure is disrupted, and the distances badgers move each day increases and increased trap rates are seen within 200m¹⁴ of uncultured areas¹⁵.

3. Licensed badger vaccination and culling to date in the Edge Area

- 3.1 Natural England (NE) grants licences under section 10 of the Protection of Badgers Act 1992 and section 16 of the Wildlife and Countryside Act 1981 to enable the culling or vaccination of badgers for the purpose of controlling the spread of TB, where TB is present in both the badger and cattle populations. Defra issues statutory Guidance to NE¹⁶ on badger control to which NE must have regard when making licensing decisions.
- 3.2 The government’s current policy on bTB and badger control enables NE to license farmers and landowners to undertake badger vaccination or culling to prevent the

¹⁰ Bacillus Calmette-Guerin vaccination is a live, prophylactic vaccine which uses a weakened version of *Mycobacterium bovis* (called *Mycobacterium bovis* BCG) . This was Licensed for use in badgers in 2010.

¹¹ Chambers et al (2011) Bacillus Calmette-Guerin vaccination reduces the severity and progression of tuberculosis in badgers

¹² Carter et al (2012) BCG vaccination reduced risk of tuberculosis infection in vaccinated badgers and unvaccinated cubs

¹³ Smith GC, McDonald RA, Wilkinson D (2012) Comparing Badger (*Meles meles*) Management Strategies for Reducing Tuberculosis Incidence in Cattle.

¹⁴ Woodroffe 2006 RBCT bait marking - median bait return distance was 170m to 320m as in badger territories near a cull zone then 500m inside a cull zone. The 200m zone just inside *accessible* land *adjacent* to *uncultured* areas saw a large increase in trap rates in the RBCT particularly in year two onwards (Donnelly 2007)

¹⁵ Riordan 2011 Reactive culling in the RBCT – The area where badgers spent 95% of their time increased from 28Ha to 40ha after culling whereas the core home range where badger spent 50% of their time also increased from 1.2 to 2Ha. Ham et al (2019) Cornwall radio-collared badgers in 2016 and 2017 -61% increase in home range after culling started.

¹⁶ Guidance issued to Natural England by the Secretary of State under section 15(2) of the Natural Environment and Rural Communities Act 2006 (NERC), July 2017 <https://www.gov.uk/government/publications/guidance-to-natural-england-preventing-spread-of-bovine-tb>

spread of bTB. The government provides financial support for badger vaccination projects in the Edge Area via the Badger Edge Vaccination Scheme 2 (BEVS).

- 3.3 In September 2014, BEVS 1 was launched to support privately-led badger vaccination in the Edge Area. The intention of the scheme was to increase the uptake of vaccination and create a buffer zone of vaccinated badgers to help prevent the eastwards spread of the disease. Six badger vaccination campaigns were offered support under the original BEVS scheme.
- 3.4 In 2015 a global shortage of BCG vaccine resulted in the prioritisation of vaccine supply for human use only. Consequently, government support for badger vaccination projects was suspended and BEVS 1 grant agreements terminated. With the resumption of the BCG supply chain, a second version of BEVS – ‘BEVS 2’ - was launched in November 2017. BEVS 2 provides match-funding, free training and vaccines for groups that want to take part in this badger vaccination programme. Currently four groups are receiving funding under this scheme.
- 3.3 The Edge Area covers a total of 26,916 km². In 2019, licensed culling covered approximately 5% of the Edge Area, with four cull areas out of a total of 43 wholly or partially in the Edge area. In 2019 licensed vaccination operations covered 0.43% of the Edge Area with a total of 439 badgers vaccinated across Edge counties.

4. Proposal to manage delivery of both vaccination and culling in Edge Area of England

- 4.1 The Guidance to Natural England on licensed badger control does not go into detail on how vaccination and culling should be deployed in a complementary manner, particularly when taking place on adjacent land. In order to address how deployment of both culling and vaccination in the Edge Area of England should be managed, the Guidance to NE needs to be updated. The Secretary of State is required to consult Natural England, the Environment Agency, and such other persons as the Secretary of State considered appropriate before making any changes to the Guidance.
- 4.2 In order to manage the deployment of both vaccination and culling it is proposed that badgers within active vaccination sites in the Edge area are protected from adjacent culling through the use of no-cull zones surrounding the vaccination sites (section 4.5 to 4.6).
- 4.3 Acknowledging that no-cull zones may reduce disease control there is a need to ensure that their introduction is proportionate. For this reason, we propose that minimum criteria (section 4.6 to 4.10) must be met before no-cull zones would be considered for a vaccination site and that the size of the zone is proportionate to the size of the vaccination site (section 4.11 to 4.15).

4.4 Responses are invited in Part C to this proposal, on any other options which could be considered, and on the proposed revisions to text of the Guidance to Natural England on licensed badger control, in particular the new sections on pages 12 and 13 (see Annex B for the draft revised Guidance).

4.5 How to manage adjacent vaccination and culling:

- It is proposed that the primary management tool should be to prevent culling i.e. in no-cull zones, surrounding vaccination sites, to reduce the risk of vaccinated badgers being culled. It should be understood that it is not possible to eliminate this possibility entirely as, although they are very territorial animals, badgers can on occasion wander several kilometres from their normal territories.
- An alternative or additional option is to have a cage-trapping only zone for culling so that vaccinated badgers can be identified and released. The success of this approach is dependent on whether and how vaccinated badgers are marked. APHA will evaluate methods of marking badgers which have the potential to last for several months. A successful method would allow badgers vaccinated within the current season to be identified and released during culling operations. If APHA's evaluation identifies a successful method, this option could be introduced in 2021.

4.6 Proposed minimum criteria:

- Only sites where a sufficient number of badgers have been vaccinated in previous years will have no-cull zones.
- Performance in previous seasons will be used as a predictor of future performance.
- What is considered to be a "sufficient number" will be set at a comparable level to the minimum number that would need to be removed during a licensed culling operation e.g. currently 2.7 badgers per km². For sites smaller than 2.25 km² at least six badgers will have needed to have been vaccinated in the previous year.
- NE will set the minimum sufficient number for each site taking into account any extenuating local factors (for example, low badger density due to the type of land) that mean the guideline above is not appropriate.

4.7 For operational reasons we propose that only vaccination sites licensed at the end of the previous season will be considered for no-cull zones. Land access sign up for badger control licence applications are assessed by NE in April. The late inclusion of newly licensed vaccination sites would prevent NE from being able to progress licensing for the relevant cull area application.

4.8 In contrast to culling, there is no minimum area size below which vaccination increases disease spread. As long as there is potential for at least one badger to be vaccinated and the applicants meet other licensing requirements, sites would be licensed for vaccination. However, not all vaccination sites warrant no-cull zones, as the reduction in disease control that they cause has costs, and needs to be proportionate to the amount of vaccination taking place.

- 4.9 Vaccination groups have several months in which to capture 70% of the badger population using cage-trapping, which we don't think is unreasonable.
- 4.10 Vaccinating a specific number of badgers per km² can be achieved relatively easily on small vaccination sites. Therefore, if population coverage [badgers per km²] were to be the only criterion to qualify for no-cull zones that might provide a perverse incentive for many small vaccination sites to be licensed purely to prevent or disrupt future culls. We do not want to discourage an approach where large numbers of badgers are vaccinated on small sites, hence our proposal for the alternative criterion of a minimum number of badgers for small sites.
- 4.11 **Size of the no-cull zone:**
- Under our proposal, no-cull zones, where applied, would have a maximum width of 2km and a minimum width of 200m, with the precise size determined such that the overall area of the no-cull zone is equal to the size of the vaccination area concerned. Annex B provides detail on how this will be applied in practice.
- 4.12 The minimum width is based on findings from the RBCT where the 200m zone just inside *accessible* land *adjacent* to *unculled* areas saw a large increase in trap rates, particularly in year two onwards¹⁷. Preventing culling in this 200m zone should reduce the “drawing out” effect of badgers from vaccinated land. Social territory may double after culling; a minimum 200m no-cull zone would accommodate expansion of a typical badger social territory size (1km²).
- 4.13 As the width of a no-cull zone increases, the risk of vaccinated badgers being culled decreases – but so does the land subject to no badger control. Although badgers can range further than 2km, this happens rarely, and does not, we think, justify no-cull zones of greater width.
- 4.14 Proportionate no-cull zone widths will avoid a situation where a small area of vaccination is surrounded by a much larger area of no-cull zone. This proportionate no-cull zone is predicted to encourage vaccinators to invest in expanding sites, rather than setting up new, diverse, small sites.
- 4.15 Where a vaccination site is located partially in the Edge Area and partially in the HRA or LRA, a no-cull zone will only be applied to the Edge Area part of the vaccination site and will be of equal area to that Edge area part. The no-cull zones

¹⁷ Donnelly et al (2007) Impacts of widespread badger culling on cattle tuberculosis: concluding analyses from a large-scale field trial

in these cases extend into the HRA or LRA¹⁸ in order that a no-cull zone is provided around the whole of the vaccination site which is located in the Edge Area.

Communicating locations to cull companies and vaccination groups

- 4.16 Cull companies need to be made aware of the location of sites meeting the requirements for no-cull zones so that contractors can be instructed where not to cull on participant land. There would be no requirement for vaccinators to change their activity on their sites. The location of cull areas is not revealed on security grounds, and we consider there is no reason to change this position.
- 4.17 We propose that landowners/occupiers and licence holders for every vaccination site in Edge Area counties are required to indicate whether they want no-cull zones surrounding their site. Consent to disclosure of the site location to cull companies would also be required before no-cull zones could be considered. The vaccination site licence holder and landowner would not be informed whether their vaccination site(s) are in or adjacent to a cull area.

Changes after culling commences

- 4.18 It is proposed that, once a cull starts, any new vaccination land in or adjacent to the area would not qualify for no-cull zones. For example, a farmer with land in the initial no-cull zone could choose to vaccinate without affecting the cull or triggering new no-cull zones.
- 4.19 At the end of each vaccination season the numbers of badgers vaccinated in each site with a no-cull zone would be reviewed. Only sites where a sufficient number of badgers continue to be vaccinated will continue to have no-cull zones. This threshold is set at 30% of the number vaccinated in the year preceding that in which a no-cull zone is first put in place (for which see paragraph 4.6). That proportion is set at 30% to reflect the expected reduction in the surrounding population. For sites smaller than 2.25 km² at least two badgers will need to be vaccinated in each year.
- 4.20 We propose that where a company concludes its minimum four-year cull and applies for a Supplementary Badger Control (SBC) licence, there is another opportunity to apply no-cull zones. All vaccination sites licensed when an SBC application is assessed would be eligible for no-cull zones if they met the minimum criteria. It is proposed that the minimum criteria in this situation is a modified version of the criteria set out in section 4.7. In order to qualify for a no-cull zone, the number

¹⁸ Where a vaccination site in the Edge area is adjacent to an area of the LRA where it is proposed a badger disease control licence is granted, this vaccination will be taken into account by the Chief Veterinary Officer in assessing the best course of action in line with current LRA badger disease control licence policy.

of badgers vaccinated in the previous years would need to be equivalent to the average density of badgers culled in years 3-4 in the adjacent cull area or 2 badgers for small sites. NE would have discretion to set a different minimum threshold based on the local situation.

When will any Guidance changes be implemented?

4.21 The responses to the consultation will be analysed and considered as part of decisions about changes to the Guidance. Any decision by the Secretary of State to introduce no-cull zones around vaccination sites in the Edge Area of England will be informed by the scientific evidence and veterinary advice available, experience from the licensed badger control operations and vaccination to date and responses to this consultation. The updated Guidance will be implemented immediately.

5. Economic assessment

5.1 The aim of the proposal is to manage the deployment of both vaccination and culling in the Edge Area to incentivise greater use of disease prevention methods. The use of badger vaccination as an intervention to lower bTB breakdowns may be under-provided in the Edge Area. This proposal aims to encourage more farmers to take up vaccination, and volunteers to deliver it, balanced with ensuring adjacent culling can take place where there is evidence that it will bring benefits to eradicating TB in the Edge Area.

Value for money

5.2 Defra's 2019 Badger Control in the HRA Value for Money (VfM) analysis¹⁹ estimates that each new cull area in the HRA will deliver benefits of approximately £1.09m over eleven years. We assume a similar benefit is available in the Edge Area as many parts of the Edge Area have similar cattle density and incidence rates of herd breakdowns as the HRA. This VfM estimate is based on the cost of industry-led culling and the benefit of avoiding further TB breakdowns. The implementation of a no-cull zone will reduce the total estimated benefits of the average cull zone because of the reduction to the culling area size. Taking into account the perturbation effect, the benefits of each new cull area are estimated to be reduced by £20,000- £25,000 for a 10km² no-cull zone around a 10 km² the vaccination area.

¹⁹ Defra's Badger Control in the HRA VfM analysis, 2019 <https://www.gov.uk/government/publications/bovine-tb-badger-control-policy-value-for-money-analysis>

Part C: Tell us what you think

6. Your comments invited

Question 1: What is your name?

Question 2: What is your email address?

Question 3: What is your organisation?

Question 4: Do you want your response to be confidential?

Question 5: Should vaccinated badgers be protected from culling to some degree, to manage delivery of adjacent vaccination and culling?

Question 6: If so, to what degree, in what circumstances and subject to what conditions? In particular –

(i) should any such protection only be provided to badgers vaccinated in the Edge Area?

(ii) should protection be achieved by means of a no-cull zone?

(iii) if so, how should the size of the no-cull zone area be determined?

(iv) should eligibility for a no-cull zone be subject to meeting certain minimum criteria?

(v) should any such eligibility criteria include a condition as to the minimum size of a vaccination site?

Question 7: Do you have any comments on the proposed revisions to the Guidance (Annex A)? The new section header and other proposed revisions to the Guidance have been **highlighted in yellow** for ease of reference.

Question 8: Do you have any other comments?

7. How to respond

7.1 Animal health policy, including bovine TB, is devolved. This consultation therefore applies to England only²⁰.

²⁰ Further information is available on TB policy in Northern Ireland, Scotland and Wales can be found at: Northern Ireland <https://www.daera-ni.gov.uk/topics/animal-health-and-welfare/animal-diseases-diseasesaffect-cattle/bovine->

7.2 This consultation is about badger control policy to prevent the spread of bovine TB. **The deadline for responses is 26 June 2020.**

7.3 We have written to organisations that we believe have a direct interest in the proposals to raise awareness about this consultation and have invited them to respond. We hope this will help ensure a wide range of informed views can be considered. Anyone else who would like to respond to the consultation is encouraged to do so. Each response will be considered in its own right and on its own merits.

7.4 You can respond in one of three ways:

- **Online** by completing the questionnaire at:
<https://consult.defra.gov.uk/animal-health-and-welfare/badger-no-cull-zones-edge-area/>
- **Email** to: bTBengage@defra.gov.uk
- **Post** to:

Bovine TB Programme
Nobel House
17 Smith Square
London
SW1P 3JR

7.5 **Our preferred method is online** because it is the fastest and most cost-effective way for us to collate, analyse and summarise responses. If you require a different format, please let us know.

7.6 We intend to publish a summary of responses to this consultation on gov.uk. It will not be practical to describe every response in detail.

7.7 The summary will not include your personal name (unless you have asked us to include it) or other personal data such as contact details. The summary may contain the name of your organisation, if you are responding on an organisation's behalf.

7.8 Defra will retain copies of responses for a suitable length of time. Please note that a member of the public can ask to see copies of information held. If you need to keep any part of your response confidential, please tell us when you respond. Please note that confidentiality disclaimers automatically added to e-mails do not count.

7.9 **Important:** We will take your reasons into account if someone asks for information. Because we must comply with the law, including access to information legislation,

<http://gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/?lang=en> and
Scotland <http://www.gov.scot/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/tuberculosis>.

we cannot promise that we will always be able to keep details that you provide to us confidential.

Confidentiality and data protection

This consultation document and consultation process have been planned to adhere to the Consultation Principles issued by the Cabinet Office.

Representative groups are asked to give a summary of the people and organisations they represent and where relevant who else they have consulted in reaching their conclusions when they respond.

Information provided in response to this consultation, including personal data, may be published or disclosed in accordance with the access to information regimes these are primarily the Environmental Information Regulations 2004 (EIRs), the Freedom of Information Act 2000 (FOIA) and the Data Protection Act 2018 (DPA). We have obligations, mainly under the EIRs, FOIA and DPA, to disclose information to particular recipients or to the public in certain circumstances.

If you want the information that you provide to be treated as confidential, please be aware that, as a public authority, the Department is bound by the Freedom of Information Act and may therefore be obliged to disclose all or some of the information you provide. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

This consultation is being conducted in line with the Cabinet Office “Consultation Principles” and be found at: <https://www.gov.uk/government/publications/consultation-principles-guidance>.

If you have any comments or complaints about the consultation process, please address them to:

Consultation Coordinator
Area 6B, 6th Floor
Nobel House
17 Smith Square,
London, SW1P 3JR.

Or email: consultation.coordinator@defra.gov.uk

Annex A: draft revised Guidance to Natural England



Department
for Environment
Food & Rural Affairs

DRAFT Guidance to Natural England

Licences to kill or take badgers for the purpose of preventing the spread of bovine TB under section 10(2)(a) of the Protection of Badgers Act 1992

May 2020

The additions are highlighted in yellow throughout.



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Scope of this guidance

1. This guidance is given by the Secretary of State to Natural England under section 15(2) of the Natural Environment and Rural Communities Act 2006 (NERC Act), and represents the Secretary of State's considered views, based on current scientific evidence, about what is required for any cull of badgers for bovine tuberculosis (TB) control purposes to be effective, safe and humane.
2. Section 15(6) of the NERC Act requires Natural England to have regard to this Guidance in discharging its functions. The Secretary of State has consulted Natural England and the Environment Agency in accordance with section 15(3)(a) and (b) of the Act and, in accordance with section 15(3)(c) of the Act, has also consulted more widely through public consultation.²¹
3. An agreement under section 78 of the NERC Act was entered into with effect from 1 October 2006 authorising Natural England to carry out various Defra functions including those relating to licensing under the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981.
4. This Guidance relates only to licensing functions under section 10(2)(a) of the Protection of Badgers Act to kill or take badgers for the purpose of preventing the spread of TB, and any associated licensing functions under section 16(3)(g) and (h) of the Wildlife and Countryside Act 1981 in relation to any activity that (in the absence of such a licence) would be prohibited under section 11 of that Act. Guidance for all other licensing relating to badgers is given in a separate document.
5. TB policy is devolved. With the exception of paragraph 41, this guidance relates to England only.

The policy

6. The government's policy is to enable the licensed culling or vaccination of badgers for the purpose of controlling the spread of TB, as part of the Strategy for achieving

²¹ Defra consultations: 2011 The government's policy on bovine TB and badger control in England <https://www.gov.uk/government/publications/the-government-s-policy-on-bovine-tb-and-badger-control-in-england>; 2015 Bovine TB: updating the criteria for badger control licence applications <https://www.gov.uk/government/consultations/bovine-tb-updating-the-criteria-for-badger-control-licence-applications>; 2016 Bovine TB: supplementary badger disease control <https://www.gov.uk/government/consultations/bovine-tb-supplementary-badger-disease-control>

Officially Bovine Tuberculosis Free status for England.²² There are three types of culling licence. Which is applicable will depend on the phase of the proposed culling operations and the TB risk area in England concerned:

- A **Badger Disease Control licence** is required where culling is to take place for the first time in the High Risk or Edge Area of England, or where Natural England considers that a Supplementary Badger Disease Control licence is not the appropriate form of licence.
 - A **Low Risk Area Badger Disease Control licence** is required where culling is to take place in a zone of the Low Risk Area (LRA) of England specified by the Animal and Plant Health Agency, where there is evidence that infection with *Mycobacterium bovis* is present in badgers and linked with infection in cattle herds.
 - A **Supplementary Badger Disease Control licence** is required where culling is to take place to prevent the recovery of the badger population following the completion of annual culling that has lasted at least four years under a Badger Disease Control licence
7. Throughout this document, where the term ‘completed’ or ‘prior’ cull is used this describes a cull that was carried out under a Badger Disease Control licence for a minimum duration of four years. A Glossary can be found at the end of this Guidance.

Culling policy requirements

8. Applications for **Badger Disease Control licences** must meet the following **criteria**.
- a. All participating farmers are complying, and for the duration of any licence continue to comply, with **statutory TB controls**.
 - b. Reasonable **biosecurity** measures are being, and for the duration of any licence will continue to be, implemented by participating farmers on their land to provide a strong protection against the spread of infection. For this purpose ‘reasonable measures’ means measures that in the particular circumstances are practicable, proportionate and appropriate, having regard to the Bovine TB Biosecurity Five-Point Plan.²³

²² The Strategy for achieving Officially Bovine Tuberculosis Free status for England (PB 14088).
<https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovine-tuberculosis-free-status-for-england>

²³ <http://www.tbhub.co.uk/biosecurity/protect-your-herd-from-tb/>

- c. The application must cover an area of at least 100km².²⁴
- d. The area must be composed of land wholly within the **High Risk** or **Edge Areas** at the time of application.²⁵
- e. The size and number of areas of **inaccessible land** within the application area should be minimised for the purposes of effective disease control, with approximately 90% of the land within the application area either accessible or within 200m of accessible land. The variance from 90% which will be accepted will be decided by Natural England on a case-by-case basis, taking into account such specific circumstances as Natural England considers relevant, e.g. topography, land use and badger sett surveys or any other matter that Natural England considers relevant. Natural England should have regard to any advice on the application from the UK Chief Veterinary Officer (CVO).
- f. Applicants must **put in place reasonable measures to mitigate the risk to non-participating farmers and landowners** of a potential increase in confirmed new incidents of TB in vulnerable livestock within the culled area and in the 2km ring surrounding the culled area; and consider whether any measures are needed to protect the interests of any non-farming interests that may be affected by badger control.
- g. For this purpose ‘reasonable measures’ means measures that in the particular circumstances are practicable, proportionate and appropriate. When assessing the reasonableness of measures, applicants and Natural England should take into account the cost of measures relative to the potential cost to non-participants of the anticipated increase in TB incidence.
- h. Applicants must enter into an agreement with Natural England under section 13 of the NERC Act (the “Badger Control Deed of Agreement”) requiring them to comply with the requirements contained in this guidance and any additional licence conditions for the purpose of ensuring that –
 - i. an effective cull is carried out each year for a minimum of four years; and
 - ii. the financial deposit (see paragraphs 8k and l) is sufficient and is managed appropriately.
- i. All land holders, unless the agreement states otherwise, must enter into agreements with Natural England under section 7 of the NERC Act (the “TB

²⁴ Paragraphs 3.13 and 3.14 of the 2015 consultation on revised licensing criteria for Badger Disease Control explain the rationale for this area size: <https://www.gov.uk/government/consultations/bovine-tb-updating-the-criteria-for-badger-control-licence-applications>.

²⁵ These areas are currently subject to a minimum of annual herd testing.

Management Agreement”) requiring them to permit access to their land for culling (including by government) and to take appropriate biosecurity measures (as required in paragraph 8b), and agreeing that government can recover any additional costs of culling.

- j. Where land is tenanted, the freeholder owners (or landlords) must generally also sign an undertaking appended to this agreement agreeing to permit access to the land for culling (including by government). Natural England may permit dispensations in certain cases, provided it considers that the likelihood of the total accessible land falling below an acceptable level (approximately 90% of the control area either accessible or within 200m of accessible land, see paragraph 8e above) as a result of the termination of any tenancy for any reason would still be very low. This may depend on:
 - i. the margin of accessible land above 90% that is accessible or within 200m of accessible land;
 - ii. the proportion of accessible land where the freehold owner is not participating, and
 - iii. the length of the tenancies to which the accessible land is subject.
 - k. Applicants must have arrangements in place to **deposit sufficient funds** in a reputable bank to cover the total cost of a four-year cull, plus a contingency sum of 25%. This deposit must be made before culling begins into an account held by the applicants. Applicants will need to provide evidence to support the cost estimates and confirmation from the bank that the deposit has been made.
 - l. The funds must be managed in line with the requirements set out in the Badger Control Deed of Agreement, including the requirement to ensure that at all times the amount remaining in the account is sufficient to ensure that culling is carried out in accordance with the licence and the Badger Control Deed of Agreement.
9. Further, applicants must satisfy Natural England that they are able to deliver an **effective cull** in line with this policy and have arrangements in place to achieve this. To deliver an **effective cull**, the following requirements must be met.
- a. Culling must be **co-ordinated** on accessible land across the entire control area.
 - b. Culling must be **sustained**, which means it must be carried out annually (but not in closed seasons) for the duration of the licence (minimum of 4 years). The culling of badgers must commence during the culling season, on or after the date specified by Natural England in its letter of authorisation, and will continue until Natural England requires it to cease in all or part of a control area. The duration of the cull needs to achieve a balance between sufficient intensity to

achieve effective disease control and what is realistically deliverable by a cull company.

- c. Culling will not be permitted during the following **closed seasons**:
- i. 1 December to 31 May for cage-trapping and shooting badgers;
 - ii. 1 February to 31 May for controlled shooting; and
 - iii. 1 December to 30 April for cage-trapping and vaccination.
- d. Culling must remove a minimum number of badgers in each year as specified below:
- iv. in the first year of culling, a **minimum number of badgers** must be removed which must be carried out throughout the land to which there is access, until the licensee is notified by Natural England that culling should be discontinued for the remainder of the culling season. This minimum number should be set at a level that in Natural England's judgement should **reduce the estimated badger population of the application area by at least 70%**;
 - v. a **minimum number of badgers** must also be removed in subsequent years of culling carried out throughout the land to which there is access, until the licensee is notified by Natural England that culling should be discontinued for the remainder of the culling season. This minimum number should be set at a level that in Natural England's judgement should maintain the badger population at the reduced level required to be achieved through culling in the first year.

10. Further vaccination sites located wholly or partially in the Edge Area that meet minimum criteria will benefit from no-cull zones around that part of the vaccination site located in the Edge area, proportionate to the size of the vaccination site located in the Edge Area.²⁶ This may have an impact on cull areas (both in the HRA and in the Edge area) near those vaccination sites. See pages 12 and 13 for Vaccination Policy Requirements.

²⁶ Where a vaccination site in the Edge area is adjacent to an area of the LRA where it is proposed a badger disease control licence is granted, this vaccination will be taken into account by the Chief Veterinary Officer in assessing the best course of action in line with current LRA badger disease control licence policy.

11. Further, applicants must satisfy Natural England that they are able to deliver the cull as safely and humanely as possible. The following requirements must be met in that respect.

- a. In order to ensure humaneness, only two **culling methods** will be permitted (which can be used in combination, or alone):
 - i. cage-trapping followed by shooting; and
 - ii. controlled shooting of free-ranging badgers ('controlled shooting').
- b. Those licensed to cull badgers must be able to demonstrate a level of **competence** appropriate to the method they will be licensed to use. Successful completion of a training course approved by government will be taken as proof of competence.
- c. Culling must be in line with the relevant Best Practice Guide.

12. Natural England should aim to ensure that culling will “not be detrimental to the survival of the population concerned” within the meaning of Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats, and for this purpose in considering applications for a licence should have regard to the guidance of the Standing Committee on the interpretation of Article 9 of that Convention. For that purpose Natural England should:

- a. determine appropriate area-specific licence conditions; and
- b. set a maximum number of badgers to be removed from the licence area.

Defra considers that this approach is sufficient to be confident that culling will not be detrimental to the survival of the relevant population of badgers.

13. Further, Natural England should take into account conservation considerations for designated sites, for example Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), and Special Protection Areas (SPAs). Under the Conservation of Habitats and Species Regulations 2017, (SI 2017/1012), an “appropriate assessment” must be carried out before granting a licence which might have a significant effect on a **European protected site** (principally SACs & SPAs).²⁷

²⁷ Where the assessment concludes that the grant of a licence might result in an adverse effect on the integrity of a European protected site, the licence must not be granted unless there are no alternative solutions and the rationale for the policy can be relied upon as an imperative reason of overriding public interest (pursuant to regulation 64 of those Regulations). Where the European protected site hosts habitat which for the purposes of the Habitats Directive is a priority habitat or a species which is a priority species, any such overriding public interest cannot be relied upon except pursuant to advice from the European Commission that it may be.

Supplementary badger disease control requirements

14. Applications for **Supplementary Badger Disease Control licences** must meet the following **criteria**.

- a. The application must relate to the whole of an area in relation to which, in the view of Natural England, an effective cull has been carried out under a licence for a period of at least four years.
- b. Supplementary Badger Disease Control will commence in the year after the end of a successful completed cull, to provide continuity of badger population control.
- c. All participating farmers are complying, and for the duration of any licence continue to comply, with **statutory TB controls**.
- d. Reasonable **biosecurity** measures are being, and for the duration of any licence will continue to be, implemented by participating farmers on their land. For this purpose 'reasonable measures' means measures that in the particular circumstances are practicable, proportionate and appropriate, having regard to the Bovine TB Biosecurity Five-Point Plan.²⁸
- e. The area to which the application relates must lie wholly within the **High Risk or Edge Areas** at the time of application.
- f. All land holders must permit Natural England access to their land for **compliance monitoring**.
- g. The duration of a Supplementary Badger Disease Control licence will be **limited to 5 years**. (The licence may, however, be revoked if appropriate following a progress evaluation or on reasonable grounds.) This does not preclude an application in due course for a further licence to take effect at the expiry of the period in question.

15. Applicants must satisfy Natural England that they are able to deliver an **effective cull** in line with this policy and have arrangements in place to achieve this. Natural England should assess whether applicants meet this requirement having regard to the following criteria -.

²⁸ See footnote 22.

- a. The application must be submitted by an experienced company or group considered capable of **co-ordinating and overseeing** effective control activity in the area.
- b. To be effective, culling should **maintain the population** at the level achieved after the prior cull, by removing each year the minimum number of badgers set by Natural England and not exceeding the maximum number set.
- c. Culling must be **co-ordinated** on accessible land across the control area and the resources deployed in culling must be such as are assessed by Natural England to be sufficient to ensure the supplementary control operation will be effective.
- d. Culling must be **sustained**, which means it must be carried out annually within the open season for the duration of the licence (unless wholly discontinued before the expiry of the licence), and for a limited duration of such period as Natural England permits in the year in question.
- e. Culling will not be permitted during the following **closed seasons**:
 - i. 1 December to 31 May for cage-trapping and shooting badgers;
 - ii. 1 February to 31 May for controlled shooting; and
 - iii. 1 December to 30 April for cage-trapping and vaccination.

16. Further vaccination sites located wholly or partially in the Edge Area that meet minimum criteria will benefit from no-cull zones around that part of the vaccination site located in the Edge area, proportionate to the size of the vaccination site located in the Edge Area.²⁹ This may have an impact on cull areas (both in the HRA and in the Edge area) near those vaccination sites. See pages 12 and 13 for Vaccination Policy Requirements.

17. Applicants must satisfy Natural England that they are able to deliver the cull as **safely and humanely** as possible. The following requirements must be met in that respect.
- a. In order to ensure humaneness, only two **culling methods** will be permitted (which can be used in combination, or alone):

²⁹ Where a vaccination site in the Edge area is adjacent to an area of the LRA where it is proposed a badger disease control licence is granted, this vaccination will be taken into account by the Chief Veterinary Officer in assessing the best course of action in line with current LRA badger disease control licence policy.

- i. cage-trapping followed by shooting; and
 - ii. controlled shooting of free-ranging badgers ('controlled shooting').
 - b. Persons to be authorised to carry out culling pursuant to the licence must be able to demonstrate a level of **competence** appropriate to the method they are licensed to use. Successful completion of a training course approved by government will be taken as proof of competence.
 - c. Culling must be carried out in accordance with the relevant Best Practice Guide.
18. Natural England should aim to ensure that Supplementary Badger Disease Control will “not be detrimental to the survival of the population concerned” within the meaning of Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats, and for this purpose in considering applications for a Supplementary Badger Disease Control licence should have regard to the guidance of the Standing Committee on the interpretation of Article 9 of that Convention. For that purpose Natural England should:
- a. determine appropriate area-specific Supplementary Badger Disease Control licence conditions; and
 - b. set a maximum number of badgers to be removed from the licence area.
19. Licensees must complete a sett survey where NE, on the CVO’s advice, deems it necessary after taking into account all appropriate information.
20. Natural England should take into account conservation considerations for designated sites, for example Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), and Special Protection Areas (SPAs). Under the Conservation of Habitats and Species Regulations 2017, (SI 2017/1012), an “appropriate assessment” must be carried out before granting a licence which might have a significant effect on a **European protected site** (principally SACs & SPAs).³⁰

Low risk area badger disease control requirements

21. Applications for **Low Risk Area Badger Disease Control licences** must meet the following **criteria**.

³⁰ See footnote 25.

- a. The application must relate to a **specific area** affected by bovine TB in which the Animal and Plant Health Agency (APHA) has found evidence that infection is present in both badgers and in cattle herds³¹. The application should cover a 'minimum affected area' and a buffer zone, where applicable, as defined by an epidemiological assessment of bovine TB and a survey of badger activity in the area, carried out by APHA.
- b. All participating farmers are complying, and for the duration of any licence continue to comply, with **statutory and (where applicable) temporary additional TB control measures** introduced as part of APHA's response.
- c. The size of any inaccessible land within the application area should be minimised for the purposes of effective disease control. Natural England will make decisions on the level of **accessible land** on a case-by-case basis, taking into account such specific circumstances as Natural England considers relevant, e.g. topography, land use and badger sett surveys or any other matter that Natural England considers relevant. Natural England should have regard to any advice on the application from the APHA and the CVO (UK).
- d. Reasonable **biosecurity** measures are being, and for the duration of any licence will continue to be, implemented by participating farmers on their land. For this purpose 'reasonable measures' means measures that in the particular circumstances are practicable, proportionate and appropriate, having regard to the Bovine TB Biosecurity Five-Point Plan.³²
- e. The area to which the application relates must lie wholly or mostly within the **Low Risk Area** at the time of application.
- f. All land holders must enter into agreements with Natural England under section 7 of the NERC Act (the "Low Risk Area Badger Control Access Agreement") requiring them to permit access to their land for culling including by government.
- g. All land holders must permit Natural England access to their land for **compliance monitoring**.
- h. The duration of a Low Risk Area Badger Disease Control licence will be determined by Natural England's assessment of all the available evidence,

³¹ Such areas are commonly known as bTB 'hotspots'. APHA can sometimes implement additional TB testing of cattle herds and TB surveillance of found-dead badgers and wild deer following the detection of one or more cattle herds with lesion- and/or culture-positive TB breakdowns of obscure origin in the LRA of England. This is a long-standing policy and the extent and duration of the enhanced TB surveillance in such areas ('potential hotspots') will differ from case to case, based on expert veterinary judgement and epidemiological assessments. Of the 21 'potential hotspot' zones set up in the LRA of England between 2004 and 2017, only in one of them was *M. bovis* infection eventually confirmed in the local badger population surveyed and thus became a confirmed 'hotspot'.

³² See footnote 22.

including monitoring of the badger population, and on a case-by-case basis. The licence may, however, be revoked if appropriate following a progress evaluation or on reasonable grounds. This does not preclude an application in due course for a further licence.

22. Applicants must satisfy Natural England that they are able to deliver an **effective cull** in line with this policy and have arrangements in place to achieve this. Natural England should assess whether applicants meet this requirement having regard to the following criteria -.

- a. culling should **lower the badger population** of the affected area sufficiently to reduce the risk of infection of cattle from badgers (whether through direct or indirect contact), and ideally substantially reduce or even eliminate it.
- b. Culling must be **co-ordinated** on accessible land across the control area and the resources deployed in culling must be such as are assessed by Natural England to be sufficient to ensure the control operation will be effective.
- c. Culling must be **sustained**, which means it must be carried out annually within the open season for the duration of the licence (unless wholly discontinued before the expiry of the licence). The culling of badgers must commence during the culling season, on or after the date specified by Natural England in its letter of authorisation, and continue until Natural England requires it to cease in all or part of a control area.
- d. Culling will not be permitted during the following **closed seasons**:
 - i. 1 December to 31 May for cage-trapping and shooting badgers;
 - ii. 1 February to 31 May for controlled shooting; and
 - iii. 1 December to 30 April for cage-trapping and vaccination.

23. Applicants must satisfy Natural England that they are able to deliver the cull as **safely and humanely** as possible. The following requirements must be met in that respect.

- a. In order to ensure humaneness, only two **culling methods** will be permitted (which can be used in combination, or alone):
 - i. cage-trapping followed by shooting; and
 - ii. controlled shooting of free-ranging badgers ('controlled shooting').
- b. Persons to be authorised to carry out culling pursuant to the licence must be able to demonstrate a level of **competence** appropriate to the method they are

licensed to use. Successful completion of a training course approved by government will be taken as proof of competence.

c. Culling must be carried out in accordance with the relevant Best Practice Guide.

24. Natural England should aim to ensure that Low Risk Area Badger Disease Control will “not be detrimental to the survival of the population concerned” within the meaning of Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats, and for this purpose in considering applications for a Low Risk Area Badger Disease Control licence should have regard to the guidance of the Standing Committee on the interpretation of Article 9 of that Convention. For that purpose Natural England should:

a. assess the risk of local extinction from a badger control operation; and

b. where necessary, determine appropriate area-specific Low Risk Area Badger Disease Control licence conditions.

25. Natural England should take into account conservation considerations for designated sites, for example Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), and Special Protection Areas (SPAs). Under the Conservation of Habitats and Species Regulations 2017, (SI 2017/1012), an “appropriate assessment” must be carried out before granting a licence which might have a significant effect on a **European protected site** (principally SACs & SPAs).³³

Vaccination policy requirements

26. It is possible to apply to Natural England for a licence to trap badgers for the purpose of TB vaccination. The vaccine may only be used under veterinary prescription. Vaccination must be carried out either by someone who is sufficiently competent (either by a trained and accredited lay vaccinator, or by a practising vet with access to personnel with adequate trapping experience).

27. Vaccination may be used independently of culling as part of a package of measures to prevent or control TB, or it may be used in combination with culling, for example vaccination may help reduce the risks to vulnerable livestock of increased TB incidence, both within and surrounding a control area, as a result of perturbation of the local badger population.

³³ See footnote 25.

28. Where the use of vaccination in combination with any type of culling licence is proposed in the HRA or Edge Area, the following best practice is recommended:

- a. where vaccination is to be used, it should be used at active badger setts found on, or adjacent to, land where vulnerable livestock are present and which fall within 2km of the edge of a control area;
- b. vaccination should take place at least 4 weeks prior to culling to allow immunity to develop in uninfected vaccinated animals;
- c. to mitigate any ongoing perturbation effect and begin to build up “herd immunity”, vaccination should be carried out annually, continuing for at least the same length of time as any culling on adjacent land; and
- d. where culling and vaccination are taking place on adjacent land in the HRA, applicants should take reasonable steps to negotiate an agreed approach to badger control operations along the relevant boundary with the landowner/occupier of the land where vaccination is occurring.

29. Where vaccination is taking place on land within Edge Area counties, vaccination licence applicants must determine whether landowners/occupiers of licensed vaccination sites wish to have no-cull zones surrounding those sites, and, if they do, to disclosure of the location of the vaccination site(s) to applicants for badger control licences.

30. Where vaccination is taking place on land within Edge Area counties and a Badger Disease Control or Supplementary Badger Disease Control licence is applied for in respect of land adjacent to such a vaccination site, any licence subsequently issued will require a no-cull zone of equivalent size to the vaccination site to be put in place when the following criteria are met:

- a. The vaccination site was licensed at the closure of the previous open season for cage trapping, i.e. 30th November;
- b. The landowner/occupier and vaccination licence holder have requested a no-cull zone be put in place around the vaccination site and given consent for the location of the site to be provided to cull company participants; and
- c. The number of badgers vaccinated on the site in the previous year is comparable to the minimum number that would need to be removed during a culling operation. Where the vaccination site is smaller than 2.25km², a minimum number of badgers must have been vaccinated in the previous year.

31. No-cull zones will be re-evaluated each year of the Badger Disease Control or Supplementary Disease Control Licence. Where sufficient badgers are not

vaccinated in the relevant vaccination site (using the text in criterion (c) above) in the preceding year, the no-cull zone will be removed.

Implementation

32. Before granting a culling licence, Natural England should be satisfied that the application meets the licence criteria and the policy requirements. Natural England, on behalf of the Secretary of State, will determine applications for culling and vaccination licences on a case-by-case basis.
33. To enable Natural England to assess licence applications, it will require applicants to demonstrate how they will meet the culling policy requirements, including details of contingency plans in case the chosen culling strategy proves ineffective.
34. Natural England should keep the duration of a cull in each year under review. The review will allow Natural England to consider whether or not to take action to terminate operations on a case-by-case basis. Natural England may take into account factors such as the CVO's advice on disease control; the latest evidence and advice on the remaining badger population; and whether any immediate action is appropriate.
35. In considering whether operations should be terminated, Natural England should take into account the extent to which the licensee's annual operational planning is being complied with and the licensing criteria continue to be met (for example, in the case of a Badger Disease Control licence, whether the extent of access has been reduced since the licence was granted) and, if so, whether this is likely to adversely affect the effectiveness of operations in reducing badger numbers.
36. A maximum of ten new Badger Disease Control areas may be licensed each year unless there are compelling reasons to increase or decrease that number. Applications will be prioritised according to the extent to which they best meet the primary aim of the policy (i.e. to eradicate TB).
37. Each Badger Disease Control licence will be granted for a period of not less than four consecutive years or such other period as Natural England may determine is appropriate to ensure that the proposed cull achieves the policy aim.
38. Each Supplementary Badger Disease Control licence will be granted for a period of not more than five consecutive years following on directly from the conclusion of a successful completed culling operation.

39. Each Low Risk Area Badger Disease Control licence will be granted for a period which Natural England determines is appropriate to ensure that the proposed cull achieves the policy aim.
40. Natural England should give the public an opportunity to comment on any licence applications that are made.
41. Natural England will seek advice from local police forces on whether additional licence conditions are required to protect public and operator safety.

Monitoring

42. As part of its licensing operation, Natural England should monitor compliance with licence conditions and agreements in place for culling and vaccination. The use of site visits will be in accordance with a risk-based approach that complies with Better Regulation principles and the Regulators' Code for Compliance. Natural England should maintain sufficient oversight of the progress of each cull area to ensure that removal of badgers and/or the level of effort deployed is consistent with that set out in operational planning, allowing cull companies or groups to flexibly manage their resources and approach to deal with changing circumstances. Natural England should be ready to advise the CVO on progress at regular intervals, reporting on effort across each cull area, progress with badger removal and compliance issues.

Reporting and disclosure of information

43. Natural England should disclose as much information as practically possible. Each year, or more frequently if appropriate, Natural England should, as a minimum, publish on its website the numbers of applications received and licences granted, and for each licence issued:
 - a. the county or counties included within the licensed area;
 - b. the size of the licensed area;
 - c. the number of badgers reported culled by each method; and
 - d. the number of non-target species caught and culled.

Enforcement

44. Natural England should apply its published Enforcement Policy Statement to breaches of licences that it has issued. Wildlife offences that are not breaches of licences may be reported to the police for investigation.
45. In relation to operations carried out under a Badger Disease Control licence, government intervention will be considered where, in particular, in the judgement of the Secretary of State, any of the following circumstances apply:
- a. where culling has not taken place at all during any year after the culling commenced in year one (applicants should detail in the operational planning the dates during which culling will be carried out);
 - b. where in any of the four years of the Badger Disease Control licence the minimum number of badgers to be culled during the cull period (specified by Natural England for the year in question) is not attained;
 - c. where the area of accessible land in relation to which the Badger Disease Control licence is granted has dropped below the acceptable level (approximately 90% of the control area either accessible or within 200m of accessible land);
 - d. where there has been any other breach of the Badger Disease Control licence which the licence holder has been asked to remedy and has failed to remedy within a reasonable period; or
 - e. where there is an Event of Default as defined in the Badger Control Deed of Agreement.

Welsh and Scottish border

46. Natural England and the Devolved Administrations should consider on a case-by-case basis any licence applications in respect of areas which cross the Welsh or Scottish border. If an application relates to an area which is solely within England but within 2km of the border, Natural England should determine the licence application in the normal way but will consult the Welsh or Scottish Government.

Glossary

Access/accessible land: land within a control area that is participating in the application and accessible for culling to take place.

Applicants: those persons named as the applicant(s) on the licence application.

Application Area: land included in an application, including both access land and non-participating land.

Badger Disease Control: a form of badger control which lasts for a minimum of 4 years.

Biosecurity measures: measures to reduce the risk of transmission of infectious disease.

Controlled shooting: the shooting of free-ranging badgers in the field (as distinct from shooting those that have first been trapped in cages).

Control Area: land included in the licence, once granted, including both land that is participating and land that is not participating in culling.

CVO: Chief Veterinary Officer (UK). Advises on the programmes necessary to control, and, where appropriate, eradicate disease.

Effective Cull: a cull that meets the requirements set out in paragraph 8.

Habitats Directive: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna (OJ L 206, 22.7.1992. p.7).

Herd immunity: an epidemiological term that refers here to the protection of sufficient susceptible individuals through vaccination in a population as a means of protecting remaining susceptible, unvaccinated animals in that population from infection.

High Risk Area, Edge Area, Low Risk Area: three geographical TB management zones defined in the Strategy for achieving Officially Bovine Tuberculosis Free status for England.

Low Risk Area Badger Disease Control licence: a form of badger control in a zone of the Low Risk Area (LRA) of England specified by the Animal and Plant Health Agency, where there is evidence that infection with *Mycobacterium bovis* is present in badgers and linked with infection in cattle herds.

***Mycobacterium bovis* (*M. bovis*):** the bacterium that causes tuberculosis (TB) in cattle (bovine TB) and can also infect and cause TB in other species of mammals.

Non-participating land: land within a control area that is not participating and where access has not been permitted for culling to take place.

Participating farmers: all freehold owners and tenants of accessible land who are in occupation of that land and have signed the TB Management Agreement.

Supplementary Badger Disease Control: a form of continuing badger control which follows an effectively completed Badger Disease Control operation.

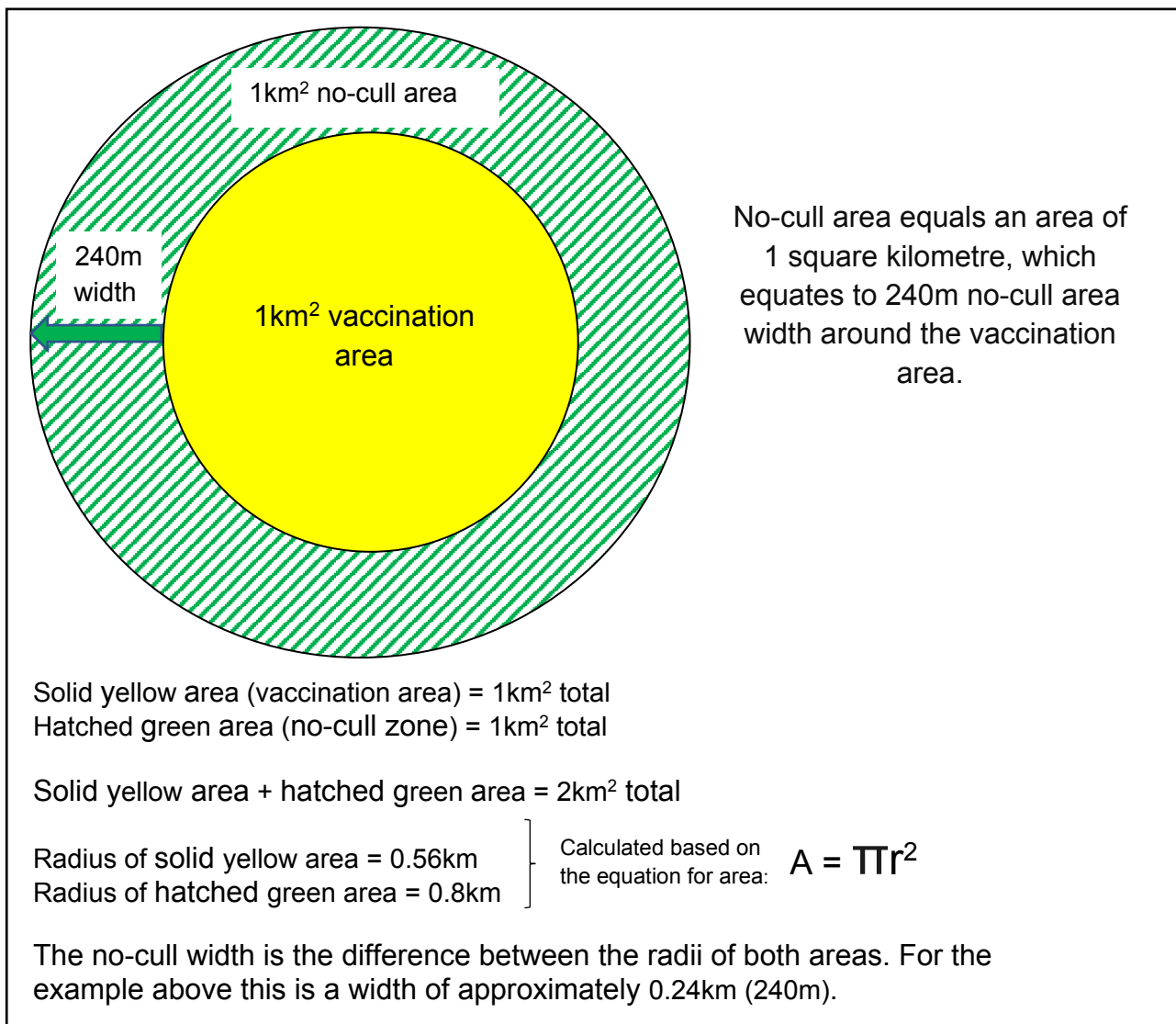
Annex B: Proposal for No-Cull Zone Sizes

As described in section 4.12 of the consultation document, where applied; the maximum no-cull zone width would be 2km, the minimum width would be 200m.

The size of the no-cull zone (in km²) would be equal to the size of the vaccination area.

For example, if an area of 1km² is vaccinated, then an additional area of 1km² would be added as a no-cull zone. This additional area is then used to calculate the width of the no-cull zone. Using a 1km² circular vaccinated area as an example, this would have a no-cull zone of 240m in width. Calculation shown in figure 1.

Figure 1: Showing how a no-cull zone will be calculated



In practical terms this means that for a single contiguous block of land, the approximate no-cull zone widths would be as follows:

- A 5km² vaccination area gets a ~500m no-cull zone width
- A 15km² vaccination area gets a ~900m no-cull zone width
- A 75km² vaccination area or larger gets a 2 km no-cull zone width (the maximum)

The exact width will depend on the precise shape of the vaccination site.