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

The Somerset Badger Group was formed 31 years ago by volunteers. We are a not for profit organisation dedicated to conserving, studying, protecting, and recording badgers and to furthering the public’s understanding of them.

Eight years ago, we set up our badger vaccination programme to offer those farmers and landowners who did not want to participate in a cull, a low cost and scientifically proven alternative. We currently hold Natural England Licences to vaccinate badgers in Somerset, Devon, Gloucestershire, Oxfordshire, and Wiltshire, are collaborating with Avon Wildlife Trust to expand badger vaccination within the Avon area, and with Oxfordshire Badger Group and Devon Badger Group with their badger vaccination programmes. To date we have delivered badger vaccination on commercial farms and other landholdings totalling around 6,000 acres, vaccinating 497 badgers and we continue to sign up new vaccination sites.

We believe that this consultation proposal is seriously flawed, is in direct contradiction to the Government’s stated commitment in its response to the Godfrey Review¹ to phase out badger culling and move to non-lethal controls, specifically a vaccine for cattle and increased use of badger vaccination. Tragically, we believe the proposals would significantly undermine all the successful publicly funded badger vaccination projects².

5. Should vaccinated badgers be protected from culling to some degree, to manage delivery of adjoining vaccination and culling?

Yes but not just to “some degree”. We believe that it is extremely important to protect all vaccinated badgers not just in the Edge Areas but also in the High Risk Areas and Low Risk Areas. We do not however, support badger culling in any form, nor this latest proposal to increase culling in Edge areas adjacent to vaccination sites. Instead we believe the focus should be to protect and increase badger vaccination programmes.

¹ Next steps for the strategy for achieving bovine tuberculosis free status for England The government’s response to the strategy review, 2018 March 2020.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf

² Badger Edge Vaccination Scheme 2 (BEVS 2). <https://www.gov.uk/government/publications/badger-edge-vaccination-scheme-2-bevs-2>

Significant sums of taxpayers' money have been spent on funding the BEVS projects³, other NGOs and organisations like ourselves have committed publicly donated funding, and farmers and landowners who wished to vaccinate rather than cull badgers have also invested considerable time and money. In addition, there has been a significant contribution made by hundreds of volunteers involved with badger vaccination programmes of both their time and through the non-claiming of expenses to deliver successful badger vaccination. Research carried out by Benton et al published May 2020⁴ attests to this success. We believe that unless vaccinated badgers are protected this huge commitment and effort will be significantly undermined. The Government has a responsibility to continue to enable this success, not to allow it to be undermined by culling.

Licences are issued by Natural England under the Protection of Badgers Act 1992⁵ to vaccinate badgers “for the purposes of preventing the spread of disease”. Scientific research has proved that there are considerable disease control benefits to vaccinated badgers which in turn reduces any potential risks of disease spread from cattle to badgers and badgers to cattle. We believe allowing culling on or adjacent to already vaccinated land will significantly undermine this important disease control benefit and would not support, rather it would undermine, the Government’s March 2020 published ‘Next Steps Strategy’ of moving towards non-lethal methods of disease control, i.e. the introduction of a cattle vaccine and the increased use of badger vaccination.

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?***

No. We believe that all vaccinated badgers should be protected in all areas, including those in the High Risk Areas. If protection is not afforded to vaccinated badgers in all areas then this will significantly undermine the Government’s published policy change in the ‘Next Steps Strategy’⁶ to “look at the introduction of four different vaccination schemes in different epidemiological situations :

- a. *Post-intensive cull vaccination phasing out SBC.*
- b. *Complementary vaccination within a cull area.*
- c. *‘Cordon sanitaire’ in defined at-risk parts of the Edge Area (refined BEVS).*
- d. *Vaccination of badgers in those parts of the HRA and Edge Area where there is a reservoir of infection in badgers but farmers have decided not to cull or have been unable to organise sufficiently to do so.”*

ii. ***Should protection be achieved by means of a no-cull zone?***

Yes. It is vital that this sort of method to protect vaccinated badgers should be put in place and that they are of sufficient size to protect vaccinated badgers, including badgers that have not been vaccinated but benefitting from ‘herd immunity’ on vaccinated land. However, it is also vital that no-

³ Badger Edge Vaccination Scheme 2 (BEVS 2). <https://www.gov.uk/government/publications/badger-edge-vaccination-scheme-2-bevs-2>

⁴ Benton et al – Badger vaccination in England: Progress, operational effectiveness and participant motivations. British Ecological Society. <https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/pan3.10095>

⁵ Protection of Badgers Act 1992. <http://www.legislation.gov.uk/ukpga/1992/51>

⁶ Next steps for the strategy for achieving bovine tuberculosis free status for England The government’s response to the strategy review, 2018 March 2020.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf

cull zones should be legally enforceable, independently monitored and effectively enforced, if they are to protect the majority of vaccinated badgers.

As a group which has been vaccinating badgers since 2012 and vaccinating within areas where culling takes place, we know that unless there is adequate protection, then a significant number of vaccinated badgers will be killed. This is evidenced by one 2.7km² site which we vaccinated between 2012 – 2018 that was granted a 200m no-cull zone around it. **The number of badgers vaccinated on this site had fallen by 86% by 2018 as the number of badgers were simply no longer available to capture and vaccinate.** The no-cull zone was not enforceable, nor was it enforced with the result that culling activity did take place within the no-cull zone. It is also highly probable that as badgers were culled around the periphery on adjoining land, vaccinated badgers expanded their territories and were also shot in successive years of culling. This belief is backed up by a recent partly Defra funded research carried out by Woodroffe et al on 65 collared badgers⁷ illustrating how the behaviour of badgers changes during culling. The research confirmed that individual badgers ranged on average 39% further from their setts in areas which were being culled.

The current method of marking vaccinated badgers allowed under the badger vaccination licence, i.e. clipping a small section of fur and using stock spray paint, will simply not be sufficient to easily identify vaccinated badgers either in the short or long term, and certainly not at night when cull operators are carrying out the cull. In addition, this would fail to identify those badgers on vaccinated land that have not been vaccinated but that are benefitting from ‘herd immunity’.

iii. ***If so, how should the size of the no-cull zone area be determined?***

The primary reason for no-cull zones would be to protect vaccinated badgers from being culled. The size and placement of no-cull zones in our view is critical to adequately protect vaccinated badgers, and unvaccinated badgers benefitting from ‘herd immunity’ on vaccinated land, from straying onto cull land. The consultation document states at paragraph 4.5 *“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.”*

We believe that the no-cull zones should be large enough to encompass the majority of badger movements. The research carried out by Woodroffe et al on 65 collared badgers⁷ on non-cull land in Cornwall, confirmed that the badgers ranged more widely, particularly during the months August, September and October and that less than 2% of badgers stayed within 200m of their setts. A significant proportion of badger movements (95%) covered an area of over 1km from the sett. Research from Ireland published in March 2014⁸ found that 5% of badger movements were over 7km. **We believe therefore that in order to protect the majority of vaccinated badgers and those unvaccinated badgers benefitting from ‘herd immunity’, that a no cull zone of at least 7km is required.**

⁷ Woodroffe et al. Effect of culling on individual badger *Meles meles* behaviour: Potential implications for bovine tuberculosis transmission. *Journal of Applied Ecology*.

<https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/1365-2664.13512>

⁸ Badgers roam many miles. *Nature* 507, 276 (2014). <https://doi.org/10.1038/507276c>

iv. ***Should eligibility for a no-cull zone be subject to meeting certain minimum criteria?***

No. We believe that all vaccination sites should be afforded protection to ensure they can remain effective, can expand, and not be undermined. We do not believe that there are any minimum criteria which could be effectively used to assess eligibility for a no-cull zone.

The consultation document is suggesting that *“only sites where a sufficient minimum number of badgers have been vaccinated in previous years will have no-cull zones”*. For sites smaller than 2.25km² at least six badgers will need to have been vaccinated”. It is also incorrect to state that “vaccination groups have several months in which to capture 70% of the badger population using cage-trapping”. The current Natural England licensing guidelines allow vaccination groups to set trap for only 2 nights and if no badgers are captured to set traps for an additional 2 nights per vaccination site.

The majority of licensed vaccination sites are smaller than 2.25km₂ and as we stated at 5 (ii) successive years of culling will make this target increasingly more difficult to achieve. This would result in an increasing number of no-cull zones being removed thus significantly undermining the protection of vaccinated badgers and therefore the majority of badger vaccination programmes and in particular, the six taxpayer funded BEVS projects.

The consultation is also suggesting that *“only vaccination sites licensed at the end of the previous season will be considered for no-cull zones”*. This proposal means that badger vaccination applications will be severely and unfairly disadvantaged. Effectively this means that it will be almost impossible to sign up badger vaccination sites within licensed cull areas, if there is any possibility that those vaccinated badgers will be shot in a cull. It will also undermine the Government’s stated intention of moving towards non-lethal control and supporting badger vaccination. **We believe that vaccination licences should instead be given priority over culling licences.**

v. ***Should any such eligibility criteria include a condition as to the minimum size of a vaccination site?***

No. We believe that all vaccination sites should be afforded protection to ensure they can remain effective, can expand, and not be undermined. Small vaccination sites can also include significant main setts which can be extremely important in delivering successful vaccination programmes and as a result important disease control benefits. If it is the intention to encourage larger vaccination sites then it would be much better to incentivise this through increased funding and support for badger vaccination groups.

The research carried out by Benton et al on badger vaccination in England⁹ found that there were a range of motivations amongst individuals involved in badger vaccination including disease control, demonstration of an alternative to badger culling and personal or professional development. The statement in the consultation document at 4.10 suggesting *“that if population coverage (badgers per km²) were 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”*. This statement is both unfounded and unhelpful in building trust in the process.

⁹ Benton et al – Badger vaccination in England: Progress, operational effectiveness and participant motivations. British Ecological Society. <https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/pan3.10095>

7. Do you have any comments on the proposed revisions to the Guidance?

i. *Criteria for the width of the no-cull buffer*

As we have previously stated at 6 (iii), we believe that in order to protect the majority of vaccinated badgers and those unvaccinated badgers benefitting from ‘herd immunity’, that a no cull zone of at least 7km is required.

The consultation document states at 4.14 that a *“proportionate no-cull zone is predicted to encourage vaccinators to invest in expanding sites, rather than setting up new, diverse small, sites.”* **We do not agree with this statement.** The proposal to allow culling adjacent to vaccination sites is highly likely to disincentivise farmers and landowners from choosing to vaccinate when there is an extremely high probability that any vaccinated badgers will eventually be killed with successive years of adjacent culling. The Government has publicly stated it wants to phase out culling and support vaccination. It would therefore be better for the Government to expand its financial support for badger vaccination in more areas rather than allow culling alongside vaccination.

ii. *Specifying vaccination “sites”*

One of the key aims of badger vaccination licence holders and badger vaccination projects is to sign up as many contiguous sites as possible. We believe that this key aim should be supported by recognising contiguous vaccination sites as single larger vaccinated sites rather than a series of smaller sites.

Where vaccination sites are partially in the Edge Area and partially in the High Risk Area or Low Risk Area the consultation proposes only allowing a no-cull-zone for the Edge Area section of the vaccination site. We believe that such a site should be afforded complete protection irrespective of which risk area its boundaries adjoin. The research on badgers’ behavioural changes¹⁰ when culling takes place, and the experience we have had with vaccinated sites surrounded by culling, means that this proposal would undermine the protection of the majority of the vaccinated badgers on that site.

iii. *Agreements between neighbouring landholders*

Paragraph 28 (d) of the draft guidance to Natural England states *“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.”* This guidance is impossible to implement as only Natural England and Defra would have the information on landholdings which were either vaccinating or culling.

We therefore believe that the need for applicants in the HRA to negotiate an agreed approach should be removed and instead no-cull zones be afforded automatically to all existing and new vaccination sites.

¹⁰ Woodroffe et al. Effect of culling on individual badger *Meles meles* behaviour: Potential implications for bovine tuberculosis transmission. *Journal of Applied Ecology*. <https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/1365-2664.13512>

Paragraph 29 requires badger vaccination licence applicants for Edge Areas to determine whether the landowner wants to have a no-cull zone around their land and that if they do, to agree to full disclosure of their sites, yet there is no requirement for full disclosure of cull applicants. Without the requirement of full disclosure on the part of the cull applicants, how will the landowner who wishes to vaccinate know whether he needs to apply for a no-cull zone in order to protect the badgers on his site? It is our belief that many will not wish to agree to full disclosure of their site details to apply for a no-cull zone and also that many may not wish to apply for fear of conflict with their neighbours. This will have the undoubted effect of undermining the badger vaccination programmes ability to both remain effective and expand.

In addition, the guidance does not state how existing vaccination sites should proceed on deciding whether a no-cull zone is required. Again, without full disclosure being required from the cull applicants on where culling is going to take place, this guidance is impossible to effectively implement as well as being incomplete.

We therefore believe that the need for badger vaccination licence applicants to apply for a no-cull zone should be removed and instead no-cull zones be afforded automatically to all existing and new vaccination sites.

The double standards regarding full disclosure on the part of applicants we believe is hugely problematic in developing the necessary trust in this process and will inevitably lead to the badger vaccination programmes being significantly undermined.

We also believe that it is not necessary for any full disclosure to Cull Companies. The only information they will require is information on the areas within which they cannot cull.

8. Do you have any other comments?

- i. The Government has stated in its 'Next Steps Strategy'¹¹ that it wishes to strengthen the 'cordon sanitaire approach' which the publicly funded BEVS project delivers. The proposal to allow culling adjacent to vaccinated land in the Edge Areas we believe will significantly undermine this intention, and it in no way supports the Government's commitment to phasing out badger culling, increasing badger vaccination and developing a vaccine for cattle. We believe that the Government has a responsibility to act on its stated intentions and enable increased vaccination and phase out culling.
- ii. **The provision of no-cull zones is extremely unlikely to protect most vaccinated badgers unless they are enforceable, independently monitored and enforced.** The level of independent monitoring of cull operations carried out by Natural England has been significantly reduced and is now, in our opinion, inadequate. This gives us little confidence that no-cull zones will be effectively monitored or enforced.
- iii. **We are extremely concerned about the lack of scientific evidence that is being used to determine that bTB is endemic in local badger populations and therefore justifies culling taking place.**

¹¹ Next steps for the strategy for achieving bovine tuberculosis free status for England The government's response to the strategy review, 2018 March 2020.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/870414/bovine-tb-strategy-review-government-response.pdf

A critical review of the Animal and Plant Health Agency report: 'Year End Descriptive Epidemiology Report commissioned by Derbyshire Wildlife Trust and published in March 2020¹² has also highlighted this concern.

During the last 7 years of culling 102,352 badgers have been culled with very few of these badgers being tested. In 2016, 994 badgers, selected from 9 HRA culling operations, were tested with only 46 (4.6%) testing positive for bTB¹³. Between 2018¹⁴ and 2019¹⁵ In the LRA of Cumbria, 676 badgers were tested, only 42 (6%) tested positive with genotype 17z, the same genotype believed to have originated in cattle imported from Ireland. In the wider cull area only 1.7% of badgers tested positive in 2018 and none tested positive in 2019 and only 3 of 317 badgers culled in the buffer zone tested positive.

The consultation document referencing in **paragraph 21 (a) – reference 31**, states “*that APHA can sometimes implement additional TB testing of cattle herds and TB surveillance of found-dead badgers and wild deer...*” In also goes on to state that “*Of the 21 ‘potential hotspot’ zones set up in the LRA of England between 2004-2017, only in one of them was M. bovis infection eventually confirmed in the local badger population surveyed and thus became a confirmed ‘hotspot’.* In fact, the completed report by the Universities of Surry, Nottingham and Liverpool on the prevalence of bTB in found-dead badgers in the Edge Areas has not been published which begs the question why?

These data do not support the claim that bTB is endemic in the badger population. This lack of evidence does not give any confidence that the decision-making criteria and process for rolling out culling is neither robust nor transparent.

- iv. Paragraph 5.2 relating to 'Value for Money' analysis takes no account of the much cheaper badger vaccination projects being carried out by volunteers which give significantly better value for money than the huge cost of culling to the taxpayers.

¹² Critical Evaluation of the Animal and Plant Health Agency report: 'Year End Descriptive Epidemiology Report. Derbyshire Wildlife Trust March 2020.

<https://www.derbyshirewildlifetrust.org.uk/sites/default/files/2020-04/Critical%20evaluation%20of%20the%20Animal%20and%20Plant%20Health%20Agency%20report.pdf>

¹³ TB surveillance in wildlife in England February 2018.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/787588/tb-surveillance-wildlife-england-2017.pdf

¹⁴ TB surveillance in badgers during year 1 badger control operations in eastern Cumbria, Low Risk Area (2018).

<https://www.gov.uk/government/publications/bovine-tb-surveillance-in-wildlife-in-england/tb-surveillance-in-badgers-during-year-1-badger-control-operations-in-eastern-cumbria-low-risk-area-2018>

¹⁵ Summary of 2019 badger control operations. March 2020

<https://www.gov.uk/government/publications/bovine-tb-summary-of-badger-control-monitoring-during-2019/summary-of-2019-badger-control-operations>