

## **Policy options of managing badger control in Derbyshire**

### **Purpose**

Outlining the pros and cons on the three options discussed with the MoS on 28-8-19 on whether and under which circumstances the Derbyshire cull area should be allowed to proceed given the concerns raised by the Derbyshire Wildlife trust.

### **Issue**

A large cull area of [REDACTED] primarily in south-west Derbyshire (Edge Area) and stretching into Staffordshire (High Risk Area), is preparing to start on September 9th. This area covers the worst affected part of Derbyshire where cattle TB levels are as high as those in parts of the HRA and the proposed cull area contains the vast majority of breakdowns attributed to badgers in the county (Figure 3 below).

Derbyshire wildlife trust (DWT) have had a vaccination licence since 2015. They currently vaccinate over [REDACTED] sites (not all will be cattle farms) across the county although only their core site in the north of the county receives BEVS funding.

The SoS has received a letter from DWT where they express concerns over culling taking place in or adjacent to their vaccination areas which they believe would lead to large number s of their vaccinated badgers being culled and undermine the vaccination project. No.10 shares these concerns.

In view of our desire to move to a vaccine based policy rather than a cull based policy this issue is delicate. We need to get the wildlife groups and the farming community working together as vaccination will be needed on the same large scale as culling is currently being carried out over. Unfortunately currently both sides have diametrically opposite views on culling and vaccination and there is mutual distrust.

### **Recommendation**

Option 3 - allowing the cull to go ahead with a with a 200m no-cull buffer around the vaccinated areas inside the cull area which would almost triple the area available to the vaccinated badgers where no culling would takes place. This is a good compromise between obtaining the disease control benefits of culling in this large area while respecting the concerns of the DWT and their work and our investment in their BEVS scheme. And is the CSA's preferred option.

### **Background**

Our TB Strategy supports roll-out of culling in the edge area, and also supports vaccination through the Badger (Edge) Vaccination Scheme (BEVS) where vaccination groups can apply for funding support for vaccinating areas for 15km<sup>2</sup> or more. The two policies were designed to work in parallel with each other, although financial support for vaccination was prioritised in the Edge given cull areas are less likely to form here, yet disease is rising sharply in the edge area and we need to get in front of disease spread.

The large DWT vaccination scheme funded by BEVS is outside the cull area as is most of their other smaller sites: DWT are unaware of the location of the cull area and so there may be an element of (misplaced) anxiety. In fact the cull company activity worked to try to avoid the main BEVS site.

There are only [REDACTED] small vaccination pockets inside the proposed cull area covering a total of only [REDACTED] (mostly individual farms/parcels of land plus a bicycle lane) (Figure 1). The CSA's view is that this type of isolated patchy vaccination is unlikely to provide disease control benefits (it does not represent value for money).

The cull area is in the part of Derbyshire used to be classed as HRA until Jan 2018 when the boundaries changed to whole counties to increase cattle TB measures there. The cull area has 967 herds and the second highest rate of TB per 100km<sup>2</sup> of all the eleven areas under consideration for licensing this year and the most breakdowns over all. This single area has had [REDACTED] of all breakdowns in England over the last three years. The other ten areas that will start in 2019 contain between them 1/6<sup>th</sup> of all English breakdowns.

In contrast most of the vaccination carried out by the DWT is in the North of Derbyshire where TB levels are much lower as is cattle herd density.

## Options

- **Continue with the Cull area with no special mitigation measures for the vaccination areas (status quo).**
- **Prevent the Derbyshire cull area starting in 2019**
- **Go ahead with a modified Derbyshire cull area**

### **1. Continue with the Cull area with no special mitigation measures for the vaccination areas (status quo).**

#### **Rationale**

The government's current policy is to allow farmers to choose to cull or vaccinate subject to meeting licensing conditions. It does not prohibit culling near vaccination areas nor does it prohibit vaccination near culling. The strategy envisages both approaches complementing each other according to local circumstances to maximise the control of TB in badgers.

Defra's published guidance to NE on badger control explicitly provides for culling and vaccination to take place in adjacent areas as part of a combined strategy and suggests best practice of how to combine the two<sup>1</sup>. Both tools have a role to play in controlling disease in badgers and therefore cattle.

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/710537/tb-licensing-guidance-ne.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710537/tb-licensing-guidance-ne.pdf) Para 26 refers

Enabling both culling and vaccination in this county would give the maximum disease control benefits. Particularly as culling is proposed for the heavily infected west whereas most of the vaccination is in the relatively unaffected north where a cull would be more difficult to organise and deliver. Very little culling overlaps with vaccination so the majority of each project is protected (see figure 1). No assurances have been given to DWT that culling would be prohibited in or around their vaccination areas, which is the general principle we have used in the past when this issue has arisen.

Going ahead with the cull area maintains farmer buy-in to our TB Strategy as only by addressing the disease in badgers can we justify and gain support for additional disease measures in cattle.

As with options 3 below, we could also confirm to DWT that the vast majority of their vaccination work is outside the cull boundary to partially reduce their concerns; and work with WT and farmers locally on developing a longer term strategy to use both measures.

## **Risks**

Continued negative public comments from DWT on the risks of culling, refocusing media interest in our badger control policy which has largely fallen out of public interest in the last couple of year.

Risks antagonising future relationships with wider wildlife groups if we want to announce renewed support for vaccination.

[REDACTED]

[REDACTED] Of the DWT vaccination area of ~200km<sup>2</sup> only [REDACTED] is inside the cull area therefore the effect of culling on the Derbyshire vaccination programme will be minimal. The CSA has advised that the small pockets of badgers being vaccinated inside the Cull area are unlikely to offer significant disease control benefits.

## **2. Prevent the Derbyshire cull area starting in 2019**

### **Rationale**

The rationale for this approach would be one of avoiding adverse media and building better relationships between Defra and vaccination groups given there would not be a disease control rationale, or licencing process rationale for not going ahead this year. Although this may also lead to a hardening of anti-vaccination views in the industry and in the NFU will be counterproductive in the long term.

### **Risks**

It is highly probable that there would be a major fallout with the NFU and cull companies and Defra/NE/Government, especially as there is a clear audit trail that the Derbyshire area has already been assessed as operationally ready.

It would also reinforce negative views among farmers of the motives of pro-vaccination groups when we need to get the two sides working better together if we want to bring about a fundamental shift in policy as part of the No.10 steer.

It could lead to perverse behaviours by anti-cull companies/groups to push for protection for other areas of vaccination e.g. Cornwall. As more farmers / landowners mobilise to tackle the reservoir of infection in wildlife, there will be an increasing number of areas where landowner choice leads to a patchwork of approaches. We would be better placed to spend efforts on emphasising the need for local partners to work together if we are to achieve the shared goal of TB eradication.

Preventing a cull due to these few vaccination sites would also be preventing deployment of a disease control tool which is likely to benefit almost a thousand cattle farms in a badly affected part of the country.

It is unclear if we could pledge to allow culling to begin in the area *next year* as the vaccination will presumably continue and so the situation will be the same in 12 months' time.

NE is authorised by Defra to be the decision maker in relation to badger cull licences. NE have satisfied themselves that the application for a cull licence for this area have met the usual criteria and they were in the process of finalising the licence. The SoS would need to issue a specific statutory direction to NE not to licence the cull in Derbyshire. This would be seen as controversial and is a legal mechanism which has not been used in this context before.



### **3. Go ahead with a modified Derbyshire cull area**

#### **What this could look like**

- a) Confirm to DWT that the majority of their vaccination work is outside the cull boundary

- b) As an exceptional goodwill measure, put in place a 200m “no-cull” buffer around vaccinated land in the cull area.
- c) Continue to work with WT and farmers locally on developing a longer term strategy that optimises the use of both measures.

## **Rationale**

The approach gives a balance between showing DWT and wildlife groups we are listening to their concerns without preventing a large number of farmers from controlling the TB risk on their land. By keeping any buffer around vaccinated land small, overall disease control won't be substantially compromised given the size of the area (modelling suggests the best disease control option would be adjacent culling and vaccination).

NE have confirmed that whilst they could include this buffer zone as part of their licencing condition, [REDACTED]

Therefore the SoS would authorise this as a one-off exceptional measure made in response to the DWT letter to the SoS. The letter only concerned vaccination in Derbyshire including their BEVS funded area and so this is a last-minute one-off exception for the operators of the largest BEVS scheme which we have supported and does not automatically apply anywhere else. Although we should review this issue for next year and see whether any disruption this provision causes to the cull outweighs giving a special protection to these areas or whether other BEVS areas or non BEVS vaccination areas should be considered similarly.

## **Risks**

Given the security issues we have not told DWT where the cull is likely to take place.

Any offer of buffers larger than 200m would risk jeopardising having sufficient land access and therefore risks an effective cull (see table1) and is not supported by the NE licensing guidance. However, the prospect of a 1km buffer zone was considered and the initial assessment is that this would render the cull area unviable on two counts. The area would no longer meet the 90% sign up requirement, and as also the cull company would lose landowners who had contributed financially meaning that the cull company could no longer meet the funding requirements.

There is one case of such a buffer being applied before to manage “good will” between a cull company and a land owner vaccinating. It is not the norm and could set a precedent for any future or current licences. This could motivate negative behaviour with spurious vaccination areas being established merely to thwart the culls (reducing land access) rather than addressing the disease issues.

Whilst this issue is fairly contained for Derbyshire, it could adversely impact on the ability on for other (smaller) cull areas to meet their 90% sign up requirement.

### **Disease control implications of a no-cull buffer around vaccination areas.**

In the cull which began in 2013 in Area-2 Somerset a 200m “no-cull” buffer was applied around one farm inside the cull area which was vaccinating as a one-off measure for the four years of their intensive cull. 200m was chosen as this is the typical distance where badgers can be “drawn out” from their home ranges by cage trapping based on analysis in the RBCT. Cull areas must have 90% of the total area either accessible or within 200m of accessible land for similar reasons to minimise leaving large pockets of uncultured badgers. This did not prevent this area from carrying out a successful cull.

So by adding such a 200m buffer (yellow ring in Figure 2) this will prevent culling over an area almost three times as large as the vaccination areas and reduce the likelihood of any of the badgers on those farms being culled. It would also have a minimal effect on the cull area as a whole as only 0.9% of the cull area would be affected.

The CSA has advised that the small pockets of badgers being vaccinated inside the Cull area are unlikely to offer significant disease control benefits and his advice is that a 200m buffer is the best option.

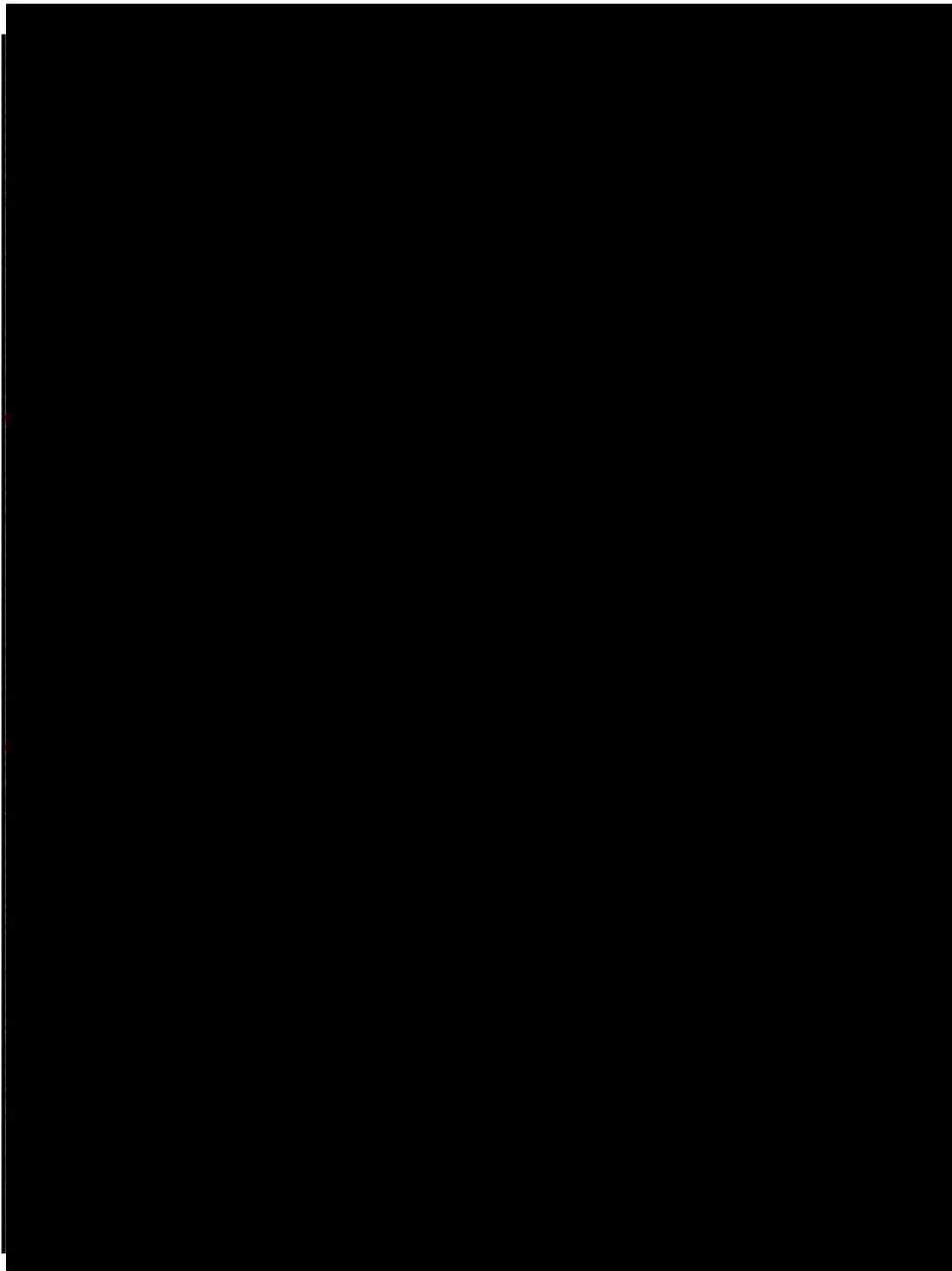
Adopting a larger buffer such as 1km (green ring ) or 2km (purple ring) would offer more mitigation but would compromise the effectiveness of the rest of the cull area as 3.8% or 10.2% of the entire cull area would be affected (Table 1). 2km is the distance over which a negative effect from culling on TB in cattle has been observed and may be due to increased badger movements following a cull. However in this specific situation in Derbyshire the size of the vaccination areas are so small that a 2km buffer would be disproportionate as 97% of the area in these enclaves would be unvaccinated and so any benefits of vaccination would be outweighed by leaving such a large proportion of uncultured and unvaccinated badgers.

Therefore there will be greater disease control benefits by culling in this area even if some of the vaccinated badgers are removed (despite the buffer area) rather than taking no action as the vaccination areas are a negligible part of the area (0.3%) and thus will not have a significant effect overall.

**Operational:** NE’s initial view is that they could deliver a 200m buffer under the current guidance<sup>2</sup>, through a condition of the cull licence (as NE do not think it would be possible to negotiate an agreed approach with the company).

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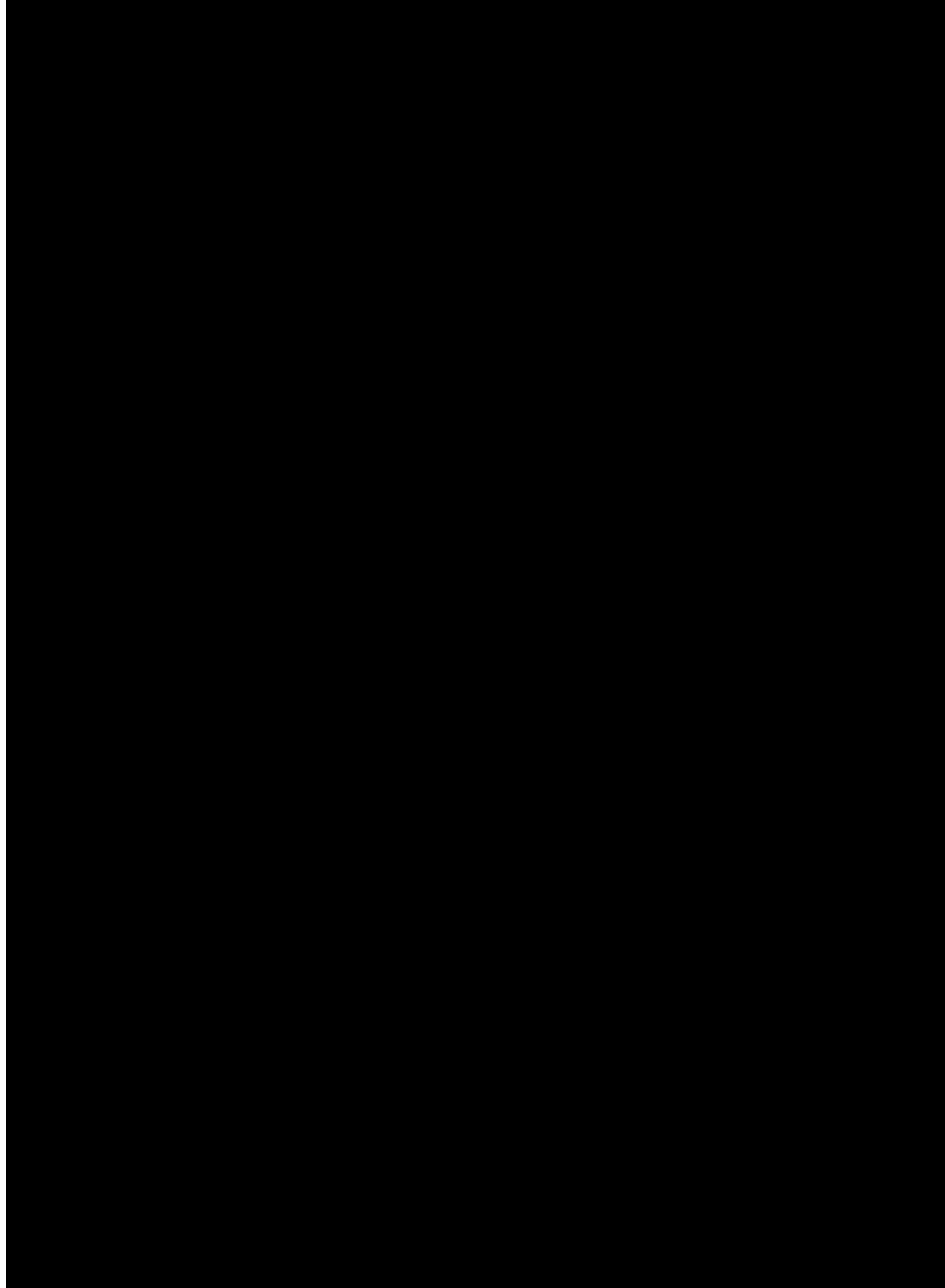
<sup>2</sup> Applicants must put in place reasonable measures to mitigate the risk to non-participating farmers and landowners of a potential increase in confirmed new incidents of TB in vulnerable livestock within the culled area and in the 2km ring surrounding the culled area; and consider whether any measures are needed to protect the interests of any non-farming interests that may be affected by badger control. (Para 8(f) of Defra’s Guidance to NE, May, 2018).



**Figure 1** Map of Derbyshire, showing the county boundary in black, prospective cull area in blue and the location of vaccination areas in red. In the “Lunar” area vaccination has taken place on three farms and a cycle path in Derbyshire, plus two adjacent farms just over the county border in Staffordshire (shown in figure 2). The large BEVS funded DWT vaccination area is the large block in the north of the county.

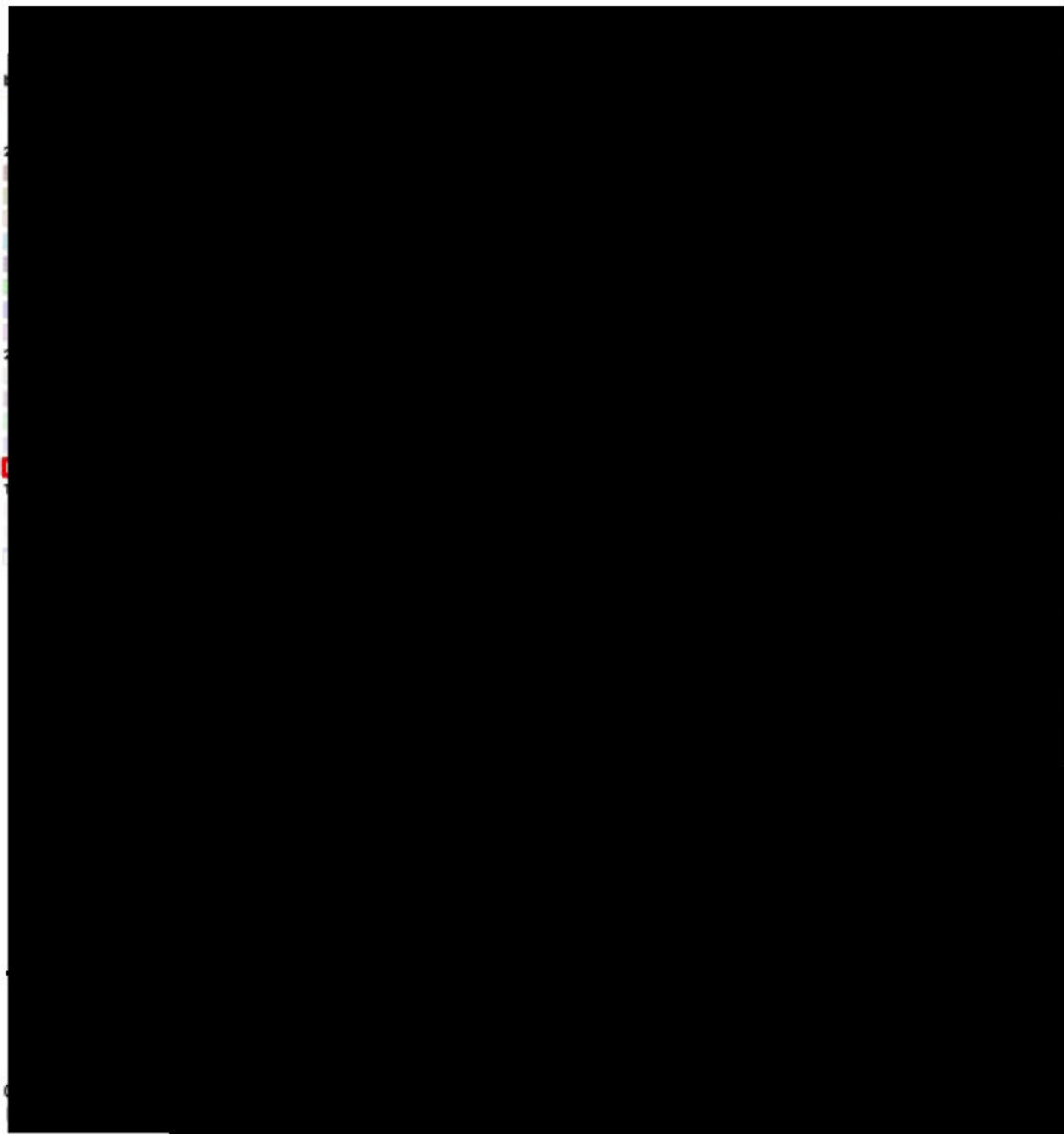
**Table 1** Adding a no cull buffer of 200m, 1km or 2km around the existing farms will prevent culling over the following area

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**Figure 2** The area affected by “no cull” buffers of 200m, 1km or 2km





**Figure 3** Location of breakdowns in Derbyshire attributed to badgers with >75% confidence (red and black dots).