# Wildlife and Countryside Act 1981 (as amended)

**Licences to kill/take birds/mammals (non-piscivorous)**

***Note: This report may be disclosed in response to Freedom of Information requests.***

NATURAL ENGLAND

# Technical Assessment of Application

## Summary of Application and Decision

| | | | |
|---|---|---|---|
| **Case reference** | WLM/2013/1750-1752<br>WLM/2013/1883-1886 | **Purpose** | Preventing damage to livestock |

Species
Common buzzard (Buteo buteo)
Sparrowhawk (Accipter nissus)

### Brief Description of Application

Applications to shoot a total of 14 buzzards at three sites. These applications follow similar applications earlier this year (ref. WLM/2013/0569-0581)[redacted].

A further application to shoot 3 (female) sparrowhawks and 2 common buzzard at a fourth site [redacted] this site was not included in the applications earlier this year.

| **Recommendation** | Action Permitted: N/A |
|---|---|
| Refuse Licence | Reason for refusal: Alternative methods not tried |
| | Date for reconsideration: N/A |

Adviser Name [redacted] Date of Report: 24/07/2013

## Application Details

### 1. Applicant

| Title | [redacted] | Forename/ Initials | [redacted] | Surname | [redacted] |
|---|---|---|---|---|---|

### 2. Site Details

Address

| | |
|---|---|
| 1. [redacted]<br>Grid Reference [redacted] | Describe precise location<br>[redacted] |

| | |
|---|---|
| 2. [redacted]<br>[redacted]<br><br>Grid Reference [redacted]<br><br>3. [redacted]<br><br>Grid Reference [redacted]<br><br>4. [redacted]<br>[redacted]<br><br>Grid Reference [redacted] | [redacted]<br><br>[redacted]<br><br>[redacted] |

Ownership of Site

[redacted]

Written permission from these landowners has previously been supplied (with the initial application), and remains valid.

# Technical Assessment

## 3. Assessment Details

| | | | |
|---|---|---|---|
| Type of Assessment | Site Visit | Date of Assessment | 11/07/2013 |
| Risk Level | High | Sensitivity Level | 3 |

Risk Assessment

Due to the contentious nature of applications to kill raptors, a thorough assessment including site visit is required. A number of site visits have been carried out in conjunction with the previous applications. The most recent visit was carried out by [redacted] on Thursday 11th July 2013, to both gather information to allow the assessment of these applications and as a compliance check in relation to previously issued licences.

Persons Interviewed (if other than applicant)

| Name | Address<br>(if not as 2 or on application) | Role | Telephone Number |
|---|---|---|---|
| Applicant only | | | |

## 4. Background Information

These applications follow a number of previous applications made since [redacted] covering all [redacted] shoots managed by the applicant (references WLM/2011/0263-0342 and WLM/2012/0357-358), and three of the same shoots covered by this current application (WLM/2013/0569-0581). Reports on these applications give full details of the background and assessment.

Previous applications for lethal control have mainly been refused on the basis that the use of other available measures had not been exhausted (specific measures were recommended for each release pen) and/or that serious damage has not been sufficiently evidenced. In April 2013 two licences were issued permitting destruction

of a total of four nests, and any eggs contained therein, over two sites [redacted] The licences were issued on the basis that the licensed action was proportionate to the level of damage evidenced.

The applicant has now reapplied to shoot or cage-trap-and-shoot buzzards between August and October at the same shoots covered in the last application, plus at [redacted] This application is for the following sites and raptor numbers:

**Table 1: Application details**

| Shoot | Management | Number of raptors applied for |
|---|---|---|
| [redacted] | Applicant [redacted] | 4 buzzards |
| [redacted] | Single farmer – Applicant [redacted] | 4 buzzards |
| [redacted] | Applicant [redacted] | 6 buzzards |
| [redacted] | Syndicate – Applicant [redacted] | 2 buzzards<br>3 sparrowhawks |

Note: [redacted] shoot has previously been run by a single farmer, with the applicant [redacted] Due to declining returns, the farmer no longer wishes to run the shoot. The applicant is [redacted] in order to retain access rights to the land for his [redacted] business. Part of the arrangement between the applicant and the landowner is that if successful days shooting are experienced then the [redacted] for the shoot will be [redacted] to the applicant.

A full description of the applicant's business, and in particular the pheasant shoots for which he is responsible, is given in the Technical Assessment for applications WLM/2013/0569 – WLM/2013/0581 (hereafter referred to as 'the previous Technical Assessment'). Please refer to this assessment for full background to the current applications.

The National Gamekeepers Organisation (NGO) is continuing to provide their full support to the applicant throughout the process.

**Previous Convictions**

[redacted]

[redacted].

## 5. Evaluation

**Raptor observations**

The applicant reports that common buzzard numbers have been increasing over the past 5 years, and over the past 3 years have reached a level where these birds are causing serious losses of poults. Details of raptor observations made by the applicant and Natural England are given in the previous Technical Assessment.

At the time of the visit in July 2013, buzzards were reported to be re-nesting in the vicinity of each of the nests destroyed under the previous licences. The licensee was not able to determine whether or not these were the same birds. During the visits evidence of nesting buzzards was seen at two sites:

1. At the [redacted] a pair of buzzards took flight from the wood on our approach. The birds circled, calling and gradually gaining a good deal of height and moving far away from the wood. This suggests that they are not currently breeding at the location, as they are unlikely to have left the nest unattended for this time. However at least one individual buzzard was also seen to emerge from the wood on two occasions, circling low then quickly returning to the wood. Initially we suspected this might be one of the pair's offspring from last year, but the fact that the individual bird(s) appeared unwilling to leave the site could maybe suggest a breeding pair.

2. One buzzard nest was observed in [redacted] The large nest was located high within a fir tree. It was unclear whether this nest was active as no parent birds or chicks were heard. However an individual bird took flight from the wood, calling, on our approach. Again this bird circled overhead, quickly gaining height and moving away some distance from the wood.

The licensee also reported buzzards to have re-nested at the Western end of [redacted] ([redacted] and in [redacted] ([redacted] Despite [redacted] returning to these sites to check the locations where the licensee had reported nests, no nests or buzzards were seen in the vicinity of the [redacted] One buzzard was seen circling in the vicinity of [redacted] but was not seen to emerge from this wood and was not calling, hence it was not possible to determine if this bird was likely to be nesting in [redacted] A sparrowhawk is also reported to be nesting in [redacted] No sparrowhawks were seen in any wood during the visit.

The application for [redacted] reports a sparrowhawk nest (with two adults and three young, within 50 yards of the release site), one buzzard nest (two adults and uncertain number of young, within 70 yards to the south of the pen) and another possible buzzard nest near the northern tip of the wood.

During the July 2013 visit, the applicant reported that he had heard that a buzzard had been killed on a road in the vicinity of [redacted] He concludes that this bird was one of the pair nesting in [redacted] and that the removal of this bird resulted in the improved return from this shoot seen last season (see 'Evidence of damage' below). However the death of this bird, its identity as a nesting bird from [redacted] and the association with the improved returns is anecdotal and unsubstantiated evidence.

**Evidence of damage**

The previous Technical Assessment details expected shooting returns, as reported by the shooting press and GWCT. It also notes the higher costs associated with small shoots (such as those covered by this application), and the consequent higher returns required for such shoots to remain viable.

The latest Smiths Gore Shoot Benchmarking survey (2011-12 – available at http://www.smithsgore.co.uk/assets/x/5080136) reports an average return rate of 41%.
Table 2 and Figure 1 show the returns for each shoot, and in particular the reduced returns at the shoots applied for ([redacted] and [redacted] since 2010-11. [redacted] shows reduced returns in 2010-11, but an improvement in both 2011-12 and again in 2012-13.

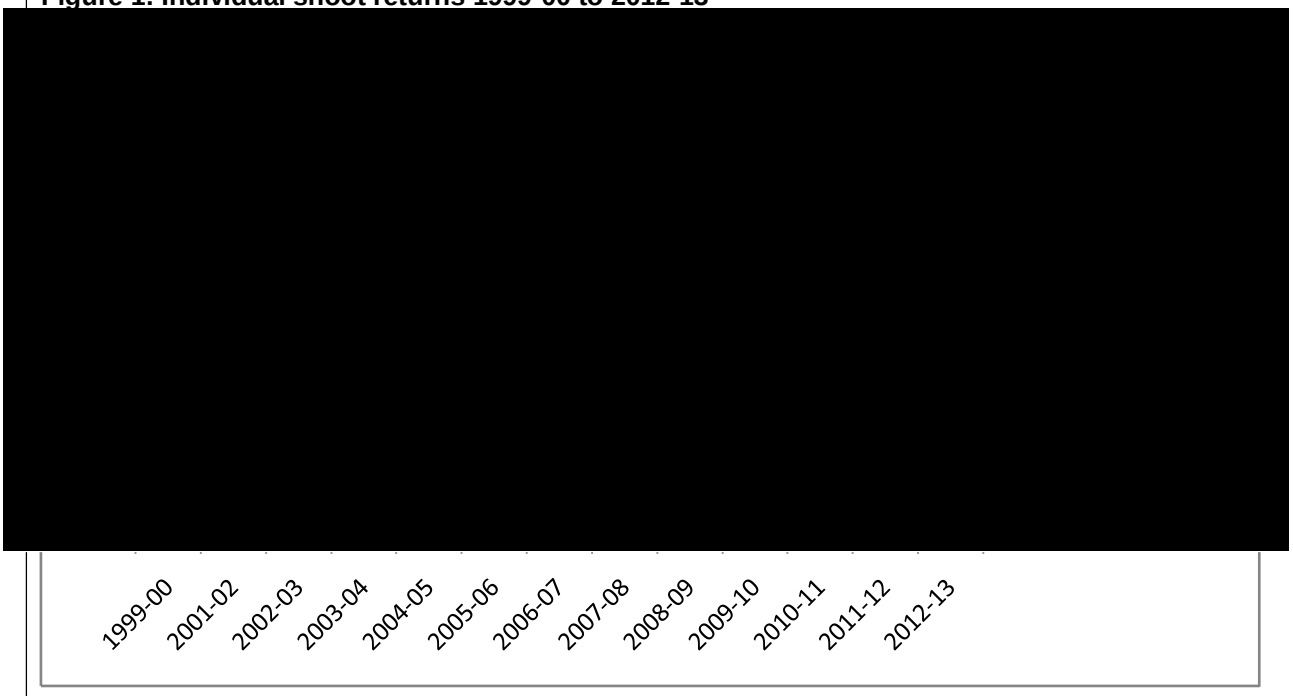
**Table 2: Annual returns per shoot 1999-00 to 2012-13**

[redacted]

x = no data available
* = Due to way returns reco[redacted] it is possible to extract [redacted] figures from 2010-11 data.

It should also be noted that in previous years the [redacted] shoot has not always been stocked and shot, which affects consistency of data.

**Figure 1: Individual shoot returns 1999-00 to 2012-13**




The overall returns collectively show a decline over a protracted period of time, with returns in 2010/11 being especially low. These declines in returns do correspond to the changes in buzzard numbers reported by the applicant. It is therefore possible that the decline in returns is a result of increased predation.

**Analysis of the four shoots**

The [redacted] shoot, following a marked drop between the 2009-10 and the 2010-11 seasons, recovered somewhat (+8.4%) in 2011-12. In 2012-13, returns were low compared to peak years and were slightly lower than in 2011-12 (-2.5%). Full analysis of return data for this shoot is hampered by the absence of data between 2007 and 2010, but the current level of returns is comparable to returns in the period 2003-2006.

The [redacted] shoot (which until 2011/12 season was combined with [redacted] suffered a marked decline in returns in 2010/11 and have since remained at this low level compared with historic returns from this shoot.

The [redacted] shoot is another for which full analysis is not possible due to missing return data. However in both 2011-12 and 2012-13 this shoot showed marked decreases in returns of 14% and 9% respectively, resulting in a return of 18% in 2012-13. From the historical data available, this shoot previously returned in the region of 50%.

The [redacted] shoot showed a marked decline in returns in 2010-11, but has since recovered with the 2012-13 return being comparable with pre-2010 figures.

The overall return for the four shoots in 2012-13 is 34.35%.

**The losses on the shoots attributed to predation by predatory birds**

The previous Technical Assessment details the applicant's observations and estimates of losses to predatory birds. No revised estimates have been provided with the current applications. Natural England considers the shooting returns (see above) to be the most accurate available indication of any losses at this site.

**<u>Other Evident Causes of Losses</u>**

The previous Technical Assessment considers the impact of disease, birds straying, road traffic accidents and other predators. It was concluded that these other factors were managed as well as would be expected on any shooting enterprise, and were not likely to be the primary reason for the apparent increased losses shown in shooting returns. We are not aware of any changes in circumstances that would lead us to come to a different conclusion at the time of this current application.

**Non-lethal measures taken to maximise pheasant survival rates**

The previous Technical Assessment evaluates the following non-lethal measures, which are summarised as follows:

**Bird management**

The number of poults released is within the recommended stocking density to reduce predation levels

Stocking with older poults has been trialled, but inconsistently, making it difficult to evaluate this measure.

There appears to be little correlation between the date of stocking and return rate.

**Preventing predation**

Pens are judged to be well constructed, with no obvious raptor perching opportunities.
The applicant has installed cover at the pheasant pens in the form of brash piles and corrugated iron shelters so that the poults may shelter when feeding and generally moving about the pens. The construction and number of brash piles has not always provided in the most effective manner to provide additional ground level cover for poults.

Car radios, gas guns, scarecrows, flashing lights and other visual deterrents have all been tried but with limited effect. The use of reflective tape was recommended, although red and white barrier tape used instead. Its use has not been consistent enough to evaluate the effectiveness of this technique. Human presence is reported to be effective. However increased presence is not practical for a single gamekeeper covering a large number of different release sites – there is simply not enough time available to increase the time spent at each site. It would not be economically viable to employ an additional person for this.

Diversionary feeding has been recommended by Natural England, along with a specification for how feed should be supplied. The applicant has tried this technique, but believes that it has the effect of concentrating buzzards in an area rather than alleviating predation pressure. However the feeding was not carried out in accordance with the specification (e.g. timing of provision of feed).

**Recent measures**

Since the previous application (earlier in 2013), two of the woods at [redacted] have this year been subject to management and have been thinned.

Wood number 1 on the site plan has not previously been visited and is an open wood of semi-mature Scots pine on the top, and extending down a small but steep slope. The nature of pine woods means that there is a greater amount of light reaching the woodland floor and as such there is increased vegetation at ground and shrub level, and the wood temperature is warmer. This was noticeable on the day of the July 2013 visit. There is good ground level cover of bracken and bramble with open warm areas, which have been further enhanced by thinning on the level part of the wood. Brashings from the thinning have been pulled into piles at the top of the slope to make wigwams to provide additional hard cover at ground level.

Wood number 2 on the site plan has been thinned throughout, this only being completed in the last 2 weeks. Timber still remains to be extracted from the wood floor and half of the brashings have been used to create wigwam piles to provide additional ground cover. The wood is lighter and warmer after thinning, but this is likely to be short lived as the thinning is light and the canopy is likely to close within 5 years. The likely short period of time before the woodland canopy once again closes is not likely to be effective at producing additional protection as it will take time for ground level flora to establish and develop. The applicant initially stated his reluctance to use the remaining brash into wigwam piles (or windrows) to provide additional cover, but with some persuasion agreed that it was worth the estimated 2 hours of time it would take to provide this feature.

Wood number 3 on the site plan has not been thinned, however the landowner provided manpower and vehicle for a day to assist the applicant in moving brash from other woods to this location and form wigwams. These have been placed close together along the feed ride and at the entrance to the wood. Some brash remains unused at the wood entrance and it was suggested that this is used to create some wigwams outside the wood where cover is limited. The cover crop outside the wood is now over 3 years old and is sparse, dominated by thistle and oxeye daisy, offering little in the way of shelter from predation or weather for poults leaving the wood.

However at both woods 1 and 2 additional soft cover will be provided due to a change in the land management

agreement in that large areas of cereals adjacent to the woods will be left standing over winter. This will offer cover and additional feed for the poults.

The underlying geology of the woods at [redacted] is a steep scarp slope rising from the west, with a south westerly aspect. As such the area is fairly exposed and makes a perfect location for buzzards to soar, using updrafts from winds on the ridge. During all previous visits buzzards have been seen at this location in numbers. However this July no buzzards were seen in the area, despite near ideal observation conditions (very warm and calm). One potential explanation is that buzzards have been deterred from the area by disturbance in the woods through the forestry operations this summer. Others reasons could be juvenile dispersal elsewhere, and adults breeding and not congregating in that area.

No additional measures have been used on the other shoots since the previous application, although the applicant intends to install visual deterrents at the pens prior to releasing the poults in August. Poults will be released at 8-9 weeks old.

It has been considered that predation is highest following harvest, once the temporary abundance of small ground mammals as prey for common buzzard has been exhausted. This year, with the late season, harvest is likely to be extremely late. At the time of the July 2013 visit there was hardly any colour in the cereal crops, suggesting harvest would be a good 4 to 6 weeks away. By that time the poults will be 12-13 weeks old and less susceptible to predation . Additionally the late growing season has resulted in an unusual abundance of vegetation, with all strong growth of many species at the same time, leading to increased levels of ground cover. These factors may help to reduce predation of pheasant poults this year.

**Proposed action**

As previously, the applicant has applied to shoot and cage-trap-and-shoot common buzzard (at all four listed sites) and sparrowhawk (at [redacted] only). This application is for the period August-October, with the aim of removing adult birds at the time of poult release.

The previous applications (earlier in 2013) to cage trap / shoot raptors at these sites have been refused on the basis that the following tests had not been sufficiently satisfied in order to issue a licence for lethal control:

1. all other reasonable non-lethal solutions have been tried and/or shown to be ineffective (i.e. the non-lethal measures implemented have not always been to the extent or specifications recommended);
2. there is a genuine problem/need (i.e. lack of sufficient evidence of serious damage being caused by buzzards at [redacted] or [redacted] in order to justify a licence to kill this species; lack of evidence of serious damage being caused by sparrowhawks at any of the shoots);
3. there are no satisfactory alternatives (i.e. thoroughly implemented non-lethal measures may provide an alternative solution); and
4. ... the action is proportionate to the problem (i.e. the non-lethal measures used and evidence of damage do not justify the severity of lethal control).

However, recognising that, at two of the shoots, significant efforts at deterring predation had been undertaken (noting the practical limits to the non-lethal measures that can be implemented by a single gamekeeper), and that there was, despite this, evidence of continuing serious damage Natural England issued licences to permit the destruction of a total of 4 common buzzard nests, and any eggs contained therein (two at each of the two shoots). This decision followed our stepwise approach to resolving problems and the assessment of “serious damage” was commensurate with the impact of the derogated activity on the protected species.

The current applications have been submitted within 4 months of the previous applications, and prior to further release of poults or further shooting return data being available. Although the applicant reports that raptors are again nesting in the vicinity of release pens, observations during the July 2013 visit were inconclusive. It is also not possible to determine whether any buzzards are re-nesting in areas where nests have been destroyed are the same birds, or may be different birds, less accustomed to taking pheasants. It is therefore not yet possible to determine whether the licensed nest destruction has been effective.

There is no new evidence of damage at the [redacted] or [redacted] shoots that would lead us to change our previous assessment and conclude that there is now sufficient evidence of serious damage occurring to justify a licence permitting lethal control.

Similarly, it is not yet possible to determine the effectiveness of the additional habitat management at [redacted] It has also been recommended that the extent of the brash piles provided be extended.

The returns from [redacted] demonstrate an improvement in returns in recent years, and thus do not provide

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|---|
| evidence of serious damage. The mere presence of predatory bird species does not necessarily mean that there will be a problem with predation. |

## 6. Consultations

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| Is the proposed site on or near a designated site (NNR, SSSI, SPA, SAC etc)? No<br><br>Where the proposal might impact on a designated site, have you consulted Natural England colleagues? N/A<br><br>For SPAs and SACs, is an Appropriate Assessment necessary? N/A |
| Reason for Consultation and Summary of Response |
| N/A |

| Colleague/body Consulted | Date of Consultation | Date Response Received |
|---|---|---|
| | | |

## 7. Consideration of Conservation Factors

**Common buzzard (*Buteo buteo*)**

Most recent authoritative population figures provided by the Avian Population Estimate Panel (APEP) estimate the number of territorial breeding pairs of common buzzard in the UK as between 57,000 and 79,000. This means that at its peak, in late summer, the total population, including non-breeding birds and young of the year, is likely to be about 300,000 birds.

In conservation terms, common buzzard is a green listed species, with a well recorded increasing population size and spread eastwards from its previous UK stronghold of western England and Wales.

The table below shows the number of sites recording common buzzard [redacted] 2004-10

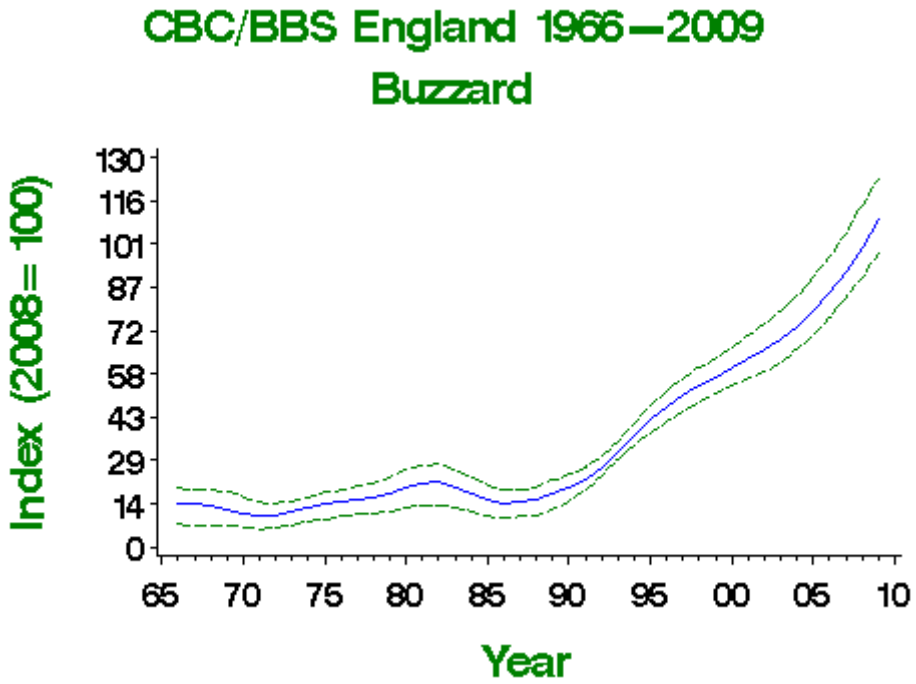
NB. The sites are adjacent to the [redacted] and also [redacted], hence the comments in the notes column are particularly relevant.

**Table 9: Common buzzards** [redacted]

| Year | No of sites recording buzzards in Aug | No of sites recording buzzards in Sept | Notes |
|---|---|---|---|
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |
| [redacted] | [redacted] | [redacted] | [redacted] |

The August and September data were extracted from the annual data and were selected as being representative of the months in which poults are introduced to pens and start to disperse from the pens and are also at their smallest and most vulnerable.

**Graph of National Common buzzard population from BTO/JNCC Breeding Birds of the Wider Countryside reports (results from Common bird census and Breeding Bird Survey)**




**1967-2008: 606% (confidence interval 359% to 1525%)**

We have issued licences to take a number of buzzard for the purposes of air safety on [redacted]). Some birds have been taken on these licences, [redacted] with no reported adverse affect on local populations.

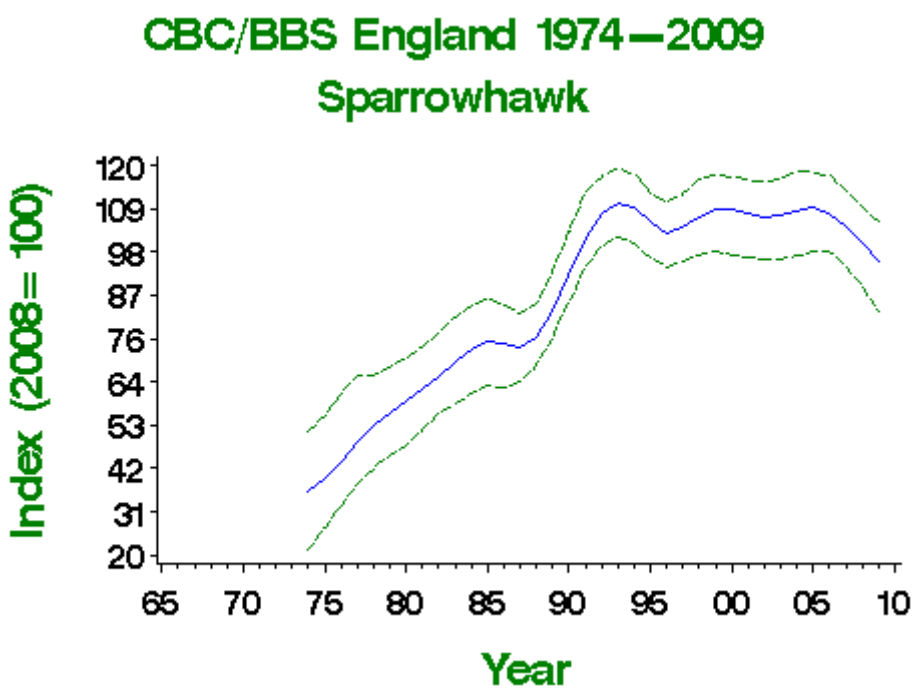
**Sparrowhawk (*Accipter nissus*)**

The national figures for the UK sparrowhawk population are given as 39,000 pairs (2000, from BTO Birdfacts website). The local [redacted]Bird Club counts for 2008 describe the sparrowhawk as common in [redacted] and have reported that sparrowhawks were recorded at [redacted] official count sites in 2008. It is also green listed.

The table below shows the number of sites recording sparrowhawk [redacted] 2004-09.

**Table 10: Sparrowhawks** [redacted]

**Graph of National sparrowhawk population from BTO/JNCC Breeding Birds of the Wider Countryside reports (results from Common bird census and Breeding Bird Survey)**




**1975-2008: 152% (confidence interval 58% to 304%)**

## 8. Disease Considerations

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|---|
| Is the proposed action likely to present a disease risk to wildlife, domestic animals or people? No<br>*If "yes", a Disease Risk Assessment (DRA) is required for this case. Consult the SOP for guidance.* |
| Consideration of Disease Risk: |
| N/A |

## 9. Licensing Criteria

| | |
|---|---|
| Is there clear evidence that the species in question is causing or is likely to cause serious damage? | No |
| Are there other evident causes of the serious damage? | No |
| Where appropriate<br>• have non-lethal methods been used?<br>• have they been found to be ineffective or impractical and not just difficult to implement? | <br>Yes<br>No |
| Is there any other satisfactory solution? | Yes |
| Will the proposed action contribute to preventing the damage? | Yes |

| | |
|---|---|
| | |
| For birds on Sch 2, Part 1 of the Wildlife and Countryside Act 1981 (the quarry list) only, are there good reasons why action could not have been taken in the open season? | N/A |

# Conclusion

## 10. Conclusions and Justification for Recommendation

**Evaluation**

This application has been assessed according to the 'Policy Statement – Species licensing under Part 1 (excluding section 14)' (http://archive.defra.gov.uk/wildlife-pets/wildlife/management/documents/section16excludingrelease.pdf) and in accordance with the approach stipulated in the overarching policy statement for Wildlife Management in respect to "other protected species", which we consider applies to the common buzzard and sparrowhawk (http://archive.defra.gov.uk/wildlife-pets/wildlife/management/documents/overarch-policy.pdf).

There is no specific guidance for raptor applications and therefore this application has thus been judged on its merits in accordance with Defra's policy guidance (see 1.9 of DEFRA Wildlife Management in England – Policy Making Framework).

**General conclusions**

1. The evidence provided in support of previous applications shows reduced returns on some shoots compared to historical figures. Reduced returns, which are being used as an indicator of damage, are most marked at [redacted] but less conclusive for the other sites, where returns are comparable to the lower end of industry averages.
2. Other possible causes of increased poult loss and reduced shoot returns have been examined and are considered to be at a level consistent with or better than any comparable game rearing project. Improvements in this area of management are unlikely to sufficiently compensate for buzzard predation losses. It is Natural England's judgement that common buzzards are likely to be the primary cause of increased losses, where these are occurring.
3. The applicant has employed a wide range of recognised measures and expended considerable effort to deter predatory birds. The recommendations made by Natural England have been implemented, although improvements could be made to the implementation of these methods (e.g. consistency in use of methods, and using different methods in combination). The practicality of measures in relation to the scale of management of these shoots (i.e. the applicant alone managing [redacted] small shoots) is also considered.

**Conclusions for each of the shoots**

[redacted]
Evidence of serious damage: Following a record low return in 2010-11, returns increased by 9% in the 2011-12 season, but fell by 3.5% in 2012-13. However the return rates for the last two seasons (37% and 35%) are close to the shoot's average for the last 10 years (38%). Additionally, the return rates are not exceptionally low compared to available shooting industry figures (e.g. averaging 41% in the recent Smiths Gore Shoot Benchmarking survey). There is no additional evidence of damage since the previous application, and hence our assessment remains the same: we acknowledge that there has been serious damage occurring (sufficient to justify a nest destruction licence) but (i) we are not in a position to determine whether this action will be successful in alleviating predation levels and (ii) we are not satisfied that the return rates, including the pattern of changes, reported for [redacted] (35% in 2012-13) amount to sufficient evidence of 'serious damage' caused by predation to justify the issuing of a licence to kill buzzards.

Other causes of the damage: Other causes for loss of pheasant poults (e.g. other predators, poults straying, RTA), and the management of these causes, are considered to be as expected or better than expected for a game rearing project of this type and scale. Therefore other causes are not considered to be resulting in serious damage.

Non-lethal measures: The following measures recommended by Natural England have been implemented (although not entirely as specified): Additional cover (corrugated zinc shelters and brash piles); visual and auditory

scarers; barrier tape; and diversionary feeding. The early measures taken by the applicant did not avert the low return in 2010-11. However further measures undertaken in 2011-12 did coincide with an increase in returns. In particular, stocking with older poults (which was done in 2011-12, but not 2012-13) may have reduced sparrowhawk predation, and hence contributed to the improved return.

In spring 2013 two buzzard nests were destroyed under licence, and the effectiveness of this measure is yet to be seen.

Other satisfactory solutions: Alterations to the manner in which non-lethal measures are employed may increase their effectiveness in preventing any damage. Continuation of stocking older poults may be a solution to the sparrowhawk predation.

Will the proposed action prevent the damage? The removal of a small number of predatory birds may be effective at alleviating predation, at least in the short term. There is no evidence that a one-off removal of a small number of birds would be effective in reducing in the long-term. However, the removal of predatory birds is not recommended at this site as the benefits of previous licensed action have yet to be evaluated and the level of damage evidenced does not justify this action. It is also felt that further use could be made of non-lethal measures in order to reduce predation.

[redacted]

Evidence of serious damage: For the third year running, the returns from this shoot have been significantly below the returns consistently achieved prior to this. (An average of 58% between 1999-00 and 2009-10, compares to a consistent 38% since, i.e. a reduction of 20%.) However this return rate is not exceptionally low compared to available shooting industry figures (e.g. averaging 41% in the recent Smiths Gore Shoot Benchmarking survey). There is no additional evidence of damage since the previous application, and hence our assessment remains the same: we acknowledge that there has been serious damage occurring (sufficient to justify a nest destruction licence) but (i) we are not in a position to determine whether this action will be successful in alleviating predation levels and (ii) we are not satisfied that the return rates, including the pattern of changes, reported for [redacted] amount to sufficient evidence of 'serious damage' caused by predation to justify the issuing of a licence to kill buzzards.

Other causes of the damage: Other causes for loss of pheasant poults (e.g. other predators, poults straying, RTA), and the management of these causes, are considered to be as expected or better than expected for a game rearing project of this type and scale. Therefore other causes are not considered to be resulting in serious damage.

Non-lethal measures: The following measures recommended by Natural England have been implemented (although not entirely as specified): Additional cover (corrugated zinc shelters and brash piles); visual and auditory scarers; and barrier tape (used extensively in 2011-12, but not in 2012-13). Despite these measures, the returns have not improved.

In spring 2013 two buzzard nests were destroyed under licence, and the effectiveness of this measure is yet to be seen.

Other satisfactory solutions: Alterations to the manner in which non-lethal measures are employed may increase their effectiveness in preventing any damage.

Will the proposed action prevent the damage? The removal of a small number of predatory birds may be effective at alleviating predation, at least in the short term. There is no evidence that a one-off removal of a small number of birds would be effective in reducing in the long-term. However, the removal of predatory birds is not recommended at this site as the benefits of previous licensed action have yet to be evaluated and the level of damage evidenced does not justify this action. It is also felt that further use could be made of non-lethal measures in order to reduce predation.

[redacted]

Evidence of serious damage: Returns from this shoot have shown a gradual decline over the long-term, but have fallen significantly in past two years, from an average of 49.58% between 1999-00 and 2009-10 to an average of 28.7% in the past three seasons (including a low of 18% in 2012-13). This corresponds to the increasing buzzard population reported at local, county and national level.

Other causes of the damage: Other causes for loss of pheasant poults (e.g. other predators, poults straying, RTA), and the management of these causes, are considered to be as expected or better than expected for a game rearing project of this type and scale. Therefore other causes are not considered to be resulting in serious damage.

Non-lethal measures: Since the initial application, Natural England has recommended that significant habitat management should be undertaken at the [redacted] release sites. In particular thinning of the woodland release sites to create open, warm areas, and provision of brash wigwams to increase the ground cover available for poults has been recommended. Shortly before the July 2013 visit, some thinning was carried out (as a forestry management measure, rather than specifically to improve the habitat for pheasant poults). The brashings from this thinning have been used to create wigwams, providing some cover for poults. Whilst the woods remain far from perfect as shoot woods, and the area has drawbacks – lack of ground cover outside the woods being the main problem – there has not been time to assess whether these habitat changes have had an impact on shoot returns. Diversionary feeding has been undertaken at this site. However this measure is reported to have concentrated buzzard predation rather than reduce it, although it is uncertain how much the manner of diversionary feeding has affected this.

Other satisfactory solutions: Natural England has recommended that further provision of cover using the brashings should be undertaken at this site. Returns at this site were previously much higher than they are now, and the coinciding of poor returns with increased avian presence does suggest that this is the likely cause. However the habitat at these release sites is insufficient in both the provision of and proportion of cover and open space at a release site. In the face of increased predation pressures, it is considered that there is an increased need to significantly improve the habitat in order to maintain this site as suitable for game release. It is more than likely that the improved woodland structure, cover in the form of brash wigwams and additional cereal crop left standing (coupled with potentially lower buzzard numbers due to disturbance this summer) will be effective in reducing predation.

Will the proposed action prevent the damage? The removal of a small number of predatory birds may be effective at alleviating predation, at least in the short term. There is no evidence that a one-off removal of a small number of birds would be effective in reducing in the long-term. However, the removal of predatory birds is not recommended at this site as it has yet to be demonstrated that non-lethal measures are ineffective at reducing predation.

[redacted]

Evidence of serious damage: Following a low return (28%) in 2010-11, returns increased in the 2011-12 season, and again in 2012-13. The 2012-13 return rate of 45% is both comparable to pre-2010 returns, and above the available shooting industry figures (e.g. averaging 41% in the recent Smiths Gore Shoot Benchmarking survey). We are not therefore satisfied that the return rates, including the pattern of changes, reported for [redacted] amount to sufficient evidence of 'serious damage' caused by predation.

Other causes of the damage: Other causes for loss of pheasant poults (e.g. other predators, poults straying, RTA), and the management of these causes, are considered to be as expected or better than expected for a game rearing project of this type and scale. Therefore other causes are not considered to be resulting in serious damage.

Non-lethal measures: The following measures recommended by Natural England have been implemented (although not entirely as specified): Additional cover (brash piles); visual and auditory scarers; barrier tape; and diversionary feeding. The implementation of these measures has coincided with the recovery of return rates since 2010-11.

Other satisfactory solutions: Consistent use of non-lethal measures, as specified by Natural England, may continue to limit predation.

Will the proposed action prevent the damage? The removal of a small number of predatory birds may be effective at alleviating predation, at least in the short term. There is no evidence that a one-off removal of a small number of birds would be effective in reducing in the long-term. However, the removal of predatory birds is not recommended at this site as there is no evidence of serious damage. It is also felt that further use could be made of non-lethal measures in order to reduce predation.

**Recommendations**

It is recommended that the applications for all four sites are refused on the following grounds:

[redacted]

- It is too early to assess the effectiveness of the nest destruction carried out under the previous licence.
- No new evidence of damage has been provided, and hence Natural England's conclusion remains unchanged: there is insufficient evidence of serious damage to justify lethal control (especially in light of the fact we don't yet know if previous licensed action has worked or not).
- Better, more consistent use could be made of non-lethal measures, as specified by Natural England.

[redacted]

- It is too early to assess the effectiveness of the nest destruction carried out under the previous licence.
- No new evidence of damage has been provided, and hence Natural England's conclusion remains unchanged: there is insufficient evidence of serious damage to justify lethal control (especially in light of the fact we don't yet know if previous licensed action has worked or not).
- Better, more consistent use could be made of non-lethal measures, as specified by Natural England.

[redacted]

- The recommended non-lethal measures have been implemented to some degree, but further improvements are required.
- It is too early to assess whether or not these measures will be effective in reducing predation and thus we are not in position to evaluate the 'no other satisfactory solution' test.

[redacted]

- No evidence of serious damage since the non-lethal measures were implemented.
- Better, more consistent use could be made of non-lethal measures, as specified by Natural England.

## 11. Attachments

Site plan
Rejection letter, explaining the licensing decision
Recommendations for release sites