

From: [REDACTED]
To: [REDACTED]
Subject: License Application: Conserving Wading Birds
Date: 05 June 2017 22:59:00
Attachments: SCCW_WCL Appendix 5 Raven Predation.docx
SCCW_WCL Appendix 4 Wading Birds.docx
SCCW_WCL Appendix 6 Non-lethal alternatives.docx
SCCW_WCL Appendix 1 Boundary and Summary Maps of Areas and Counts.pdf
Local Knowledge Evidence GT.DOCX
SCCW_WCL Appendix 3 Count methods.pdf
SCCW_WCL Appendix 2 Original Maps of Areas and Counts.docx
Local Knowledge Evidence 1.docx
Local Knowledge Evidence 4.pdf
Local Knowledge Evidence GA.DOCX
SCCW-WCL Licence 170526.docx

Dear [REDACTED]

Please find attached a licence application to protect Wading Birds, on behalf of Strathbraan Community Collaboration for Waders (SCCW).

Yours Sincerely,

[REDACTED]. Please
acknowledge receipt of this email

Application to Scottish Natural Heritage: Licence to protect wading birds from raven predation, 2017-2018.

Strathbraan Community Collaboration for Waders (SCCW)

1. **Application**

1.1. **Licence sought**

A licence to take and kill ravens (*Corvus corax*) for the purposes of conserving wild birds, notably curlew (*Numenius arquata*), lapwing (*Vanellus vanellus*) and golden plover (*Pluvialis apricaria*) in a defined area of western Perth & Kinross (see Appendix 1) during the periods 1/3/17-16/7/17 and 1/3/18-16/7/18.

1.2. **Competence**

Scottish Natural Heritage (SNH) is an 'appropriate authority' and has powers to grant such a licence under Section 16 subsection (1)(c) of the Wildlife and Countryside Act 1981 (as amended), subject to the provisions of Section 16, subsections (1A) and (5).

1.3. **Proposed Licence Holder**

1.3.1. Strathbraan Community Collaboration for Waders

1.3.2. Point of Contact and Licence Holder: [REDACTED]

2. **Reason for Application**

2.1. **Context**

In 2016, *Understanding Predation* (UP), commissioned by Scottish Government, funded by SNH and managed by Scotland's Moorland Forum, concluded that six wild birds had shown widespread declines across Scotland since the 1960s (Appendix 4). Included were the three wading birds this particular licence application seeks to conserve, Curlew (CU), Lapwing (L) and Golden Plover (GP). UP also showed the value of using local knowledge, that of land managers and community residents, to scrutinise reasons for decline and possible solutions.

2.2. **Need**

The proposed licence area, in western Perth & Kinross, has a wide diversity and area of habitats which appear optimal for breeding waders. It seems likely, from local knowledge and third party wader survey work (see testimony), that many of the valley flats, moor and montane tops in this landscape are regionally important for breeding waders (noting the area's inclusion on the SRDP AECS wading bird options targeting map and the importance of the area in the BTO Bird Atlas 2017-11; see Appendix 4). Over the last 15 years, in line with much of Scotland, ravens have become increasingly commonplace in the area (see testimony). The welcome expansion of the raven population has increased predation pressure on the wading birds. Predation is of eggs, chicks and adults by ravens, during the raven and wader breeding season. The fact that this predation takes place is established by submissions to UP and by the local knowledge and records of the area's local community (Appendix 5). A licence to take ravens is needed to address two issues: (1) that any risk this predation pressure poses to these core populations is currently unmanageable and (2) that impacts on the populations of waders are hard to quantify.

2.3. **Collaboration**

Understanding Predation agreed urgent action was required to conserve wading birds and that collaborative approaches should be considered. This collaborative licence application seeks to take that objective forward. The 'Strathbraan Community Collaboration for Waders' (SCCW) represents some of the local land management (farmers, gamekeepers) and private interests in the area who value wading birds for their biodiversity, social and economic value to the area and Scotland more widely. The application is supported by Scottish Gamekeepers Association and technical advice and support, notably data gathering and interpretation, is being provided by Game & Wildlife Conservation Trust.

2.4. **Adaptation**

Understanding Predation also found that to better conserve ground nesting birds, adaptive approaches to conservation management should be considered. Adaptive approaches, where management techniques are amended, the effect of the changes on the species of interest monitored and assessed, and used to inform new management approaches, are relevant in management contexts. In this context, we seek to adapt the practices and techniques used for the legal predator control of some corvids, notably the common/hooded crow (*Corvus corone*) under General Licence (1) to take non-breeding ravens, to

secure the current breeding performance of this core population, and to establish whether this can contribute to the enhancement of core populations of wading bird species.

2.5. Justification

Such a licensable approach appears justified as:

- there are no immediately apparent other satisfactory land management actions to further conserve wading birds in this area (habitats and land management, including farming and predator control, in the identified areas are suitable for waders) – Appendix 6.
- such a licence is necessary to help establish whether lethal raven control will further conserve wading birds.
- the licence is being sought for a defined period, area, season, range of techniques, numbers and age class, such that it will also protect raven conservation status.

3. Licence Objectives

3.1. The three objectives of the licence (below) reflect the common aim of *Understanding Predation*: to achieve sustainability in both predator and prey populations, notably by:

- Maintaining and/or improving existing populations of CU, L and GP in the defined area, notably by conserving breeding success of these conservation listed species.
- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

4. Data Gathering

4.1. The three licence objectives require data to be gathered from the licence area on wading bird populations (to monitor change and success), raven populations (to monitor management effect and conservation status) and management (to describe activity undertaken so this can be modified if required).

5. Raven monitoring

5.1. The licence holder will co-ordinate annual, landscape scale raven population censuses in the licence area. This will provide a measure of recruitment of ravens from non-breeding to breeding status.

5.2. Non-breeding flocks:

5.2.1. The focus of the licence application is on mitigating and understanding the impact of non-breeding flocks of ravens. The number of non-breeding raven will be recorded each year through co-ordinated vantage point counts, and reported for the licence area as a whole.

5.2.2. These counts will be complimented by recording other raven sightings made during daily work. These will be recorded onto standard recording forms.

5.2.3. Predation of wading birds eggs, chicks and adults by ravens, observed by land managers, from fixed point vantage monitoring will be recorded.

5.2.4. Data collection was started on 31st March 2017. The co-ordinated count by 11 observers (of a maximum possible 12 in the area) estimates 231 ravens.

5.2.5. An estimate of the number of non-breeding raven will be recorded each year and reported for the licence area as a whole. GWCT will maintain a raven sighting database.

5.3. Breeding Pairs:

5.3.1. An estimate of the number of breeding pairs of raven is being recorded each year and reported for the licence area as a whole. GWCT will maintain a raven sighting database.

6. Wading bird monitoring.

6.1. The licence holder will co-ordinate a wading bird (wader) population census in the licence area. The census will record breeding pairs, and estimate fledging success.

6.2. These data will form a baseline measure of presence and success, and will be used alongside data on regional and national trends in wader numbers from the BTO Atlas, wader surveys undertaken during work on the Beaulieu-Denny powerline, and wader count data derived from GWCT grouse count sites. Feedback from the licence holder and trends in wader numbers and fledging will be used to guide the setting of the raven cull limit with SNH.

6.3. Further information on the species of conservation interest, status and impacts are in Appendix 4.

6.4. Breeding Waders (local knowledge)

6.4.1. The area was stratified by identifying core and improvable wading bird populations were identified using the local knowledge of the farming and keeping community for the period 2012-2016 (Appendix 1 and 2). The areas have suitable habitat and land management (farming and keeping activity) for waders to breed.

6.4.2. The subjective performance of wading birds in these areas will be assessed at the end of each breeding season and recorded for assessment.

6.5. Breeding Waders (transect counts)

6.5.1. The local knowledge regarding wader abundance and breeding in the areas identified above will be formalised by locating a series of repeatable, consistent counts alongside these areas – a purposive sampling strategy that builds on local interest in waders and capacity to conduct counts.

6.5.2. The counts will quantify wader abundance and breeding, and will provide the basis on which to assess conservation status and the effects of management.

6.5.3. Counts are based on walked transects, a modified BBS type approach. Site locations are described in summary in Appendix 1, in detail in Appendix 2 and the monitoring protocol is described in Appendix 3.

6.5.4. 17 breeding wader counts per licence area will be distributed through the raven licence area to provide a representative cross section of available habitat types.

6.5.5. At 6 locations in the licence area vantage point counts will be undertaken to establish detailed fledging success data for small areas of 250mx250m.

6.5.6. The data will be reported to GWCT who will maintain a breeding wader database.

6.5.7. Data collection began in mid-April 2017.

7. Licence details - period

7.1. Proposed Start Date: 1st March 2017

7.2. Proposed End Date: July 16th 2017. Then March 1st to July 16th 2018.

7.2.1. Reasoning: Within year this protects the majority of first (day 100) and second nests of CU, L. and GP, at the critical time when they are most vulnerable to predation. Between years, a reasonable period over which the management impact can be assessed on both RN and CU, L. and GP. The March 1st start enables those operating under the licence to pre-empt a build-up of RN in any core area, to make these highly intelligent birds warier and easier to move on, before CU, L. and GP start to settle for nesting.

7.3. It is intended this licence will be re-issued for 5 years to enable an assessment of management effects.

8. Licence details – licenced area

8.1. Details of the area in which predation is occurring

The area comprises open heather moor, hill edge, farmland, watercourses and forestry in the Eastern Lowlands National Heritage Zone (16). Much of the area is under land management that is highly suitable for conserving wading birds (Appendix 6).

8.2. The boundary of the area within which the licence will be operated is indicated in the attached plans (Appendix 1).

8.3. Verbal description: The boundary's western point is the junctions of the B867 and Prieston Road in the village of Bankfoot, Perthshire. From there it runs westward following the C-classified Tulliebelton Road to Gourdiehill. There it leaves the road running south-west, crossing the Shochie Burn and joining the B8063 east of Drumharrow Cottages. The boundary follows the B8063 westward to the junction of the A822. The boundary follows the A822 westward to Gilmerton, where it turns northward, following the C-classified road to Monzie and The Hosh. At The Hosh the boundary leaves the public road and follows the Turret Burn north-west to Loch Turret. Passing along the centreline of Loch Turret, it exits the loch at its northern end (NN797295). From this point the boundary follows a straight line to the summit of Ben Chonzie. From this summit the boundary line tracks west to the Trig Point (NN 708323) on Creag Uchdag. It then follows the county boundary north until it meets the unclassified South Loch Tay road at Creag na Columan. The boundary then turns north east then east, following the South Loch Tay road to its junction with the A827 at Kennmore. The boundary follows the A827 east to its

junction with the A826 in Aberfeldy. The boundary follows the A826 south-east to its junction with the A822 in Strathbraan. It tracks east along the A822 to the junction with the A9 at Dunkeld. Following the A9 south, it turns to follow the B867 road, returning to its western end in Bankfoot.

- 8.4. The boundary is indicative, and it is proposed that no licensed activity will take place within 50m of the boundary. The boundary area does not assume the agreement or otherwise of landowners and tenants within it to the terms of the licence.

9. Licence details – raven control

9.1. Number

- 9.2. The licence will allow 92 ravens (40% of non-breeding ravens observed during the co-ordinated count on 31st March 2017) to be taken in 2017.

9.2.1. We understand that using current population and range data, and research currently being undertaken, removal of 40-50% of sub-adult ravens is likely to have no lasting damage on the conservation status of RN. We understand that the output from a national raven Population Viability Assessment (PVA), in combination with data on regional and national trends in raven numbers from the BTO Atlas, raven observations from grouse count areas, feedback from the licence holder and trends in wader numbers and fledging, will be used to guide the setting of a cull limit.

- 9.3. The number to be taken in 2018 will be subject to review in October 2018 between the licence holder, SNH and GWCT.

9.4. Breeding status

- 9.5. Efforts will be made to target only flocks of ravens, these being indicative of non-breeding status. Explicitly breeding pairs will not be taken. This management option will be reviewed if data indicates the conservation of wading birds can only be achieved by taking pairs, and that this can be done without impacting raven conservation status.

9.6. Methods of taking

9.6.1. Shooting – the safe use of suitable firearms during daylight hours will be permitted. The licence will require all those using firearms to have current certificates and to be operating over ground with the approval of the owner. The use of electronic calls will be permitted.

9.6.2. Multi-catch traps – the use of multi-catch traps to take ravens will be permitted. The operation of raven decoys and the taking of ravens in multi-catch traps will be regulated as per the guidance contained in General Licence (1) for the common/hooded crow (*Corvus corone*).

9.6.3. Authorisation is not being sought at this stage to take ravens in Larsen or Larsen mate traps, or in spring-over traps, or to shoot birds at roost.

- 9.7. Those operating under the licence (authorised by the licence holder) will have completed GWCT training in corvid control which details the importance of humane dispatch.

- 9.8. The licence will specify that the remains of all ravens taken and/or killed will be disposed of discreetly and carefully.

9.9. Reporting

- 9.10. There will be joint briefings by a group comprising SNH, GWCT and SGA prior to the start of the licence on monitoring results, targets for RN and wader numbers, achieved cull targets.

- 9.11. Achieved raven culls will be communicated by those operating under the licence (authorised by the licence holder), on a weekly basis, to the licence's Point of Contact. This information will be held on standard recording forms as a consistent record.

10. Licence details – adaptation

- 10.1. Representatives of the licence holder, SGA, GWCT and SNH will meet in October 2017 and February 2018 to review the operation of the licence.

10.2. Baseline

- 10.3. In October 2017 GWCT will provide a baseline for wading bird population performance in the area, presenting numbers and fledging success.

- 10.4. The number and means of take of ravens in 2017 will be assessed.

10.4.1. It is expected there will be no measurable effect of control in 2017.

10.5. Management effects

- 10.6.** A review of these parameters will be undertaken in October 2018 to determine the content of the 2019-2020 licence.
- 10.7.** The review will consider whether the wading bird population remained stable, increased or declined in number, and whether fledging success was better, the same as or declined compared to baseline years.
- 10.8.** Stability or improvement would suggest no changes to the 2019-2020 licence provisions.
- 10.9.** Decline in numbers of breeding success might indicate either the need for further reductions in predation pressure (more ravens taken, or taken in different ways or contexts), or that raven control is ineffective.
- 10.10.** The presumption would be to continue to operate the licence for another two years before drawing any conclusion.



Since 1980 there has been a drastic reduction in Golden Plover numbers on our high ground with a huge increase in raven numbers since they were protected in 1981. It used to be possible to walk the tops and see between 10 and 15 broods of golden plover, now after the ravens have hunted these tops which I have witness on many occasions it is doubtful if one or two broods fledge each year. Lower down in the glen I have also witnessed ravens lifting 3 – 4 week old black cock chicks from waist length grass. This shows that even with habitat at waist length that ravens are more than capable of predated species of conservation concern.

[REDACTED]

Thursday, 20 April 2017

[REDACTED]

Dear Sir,

With regard to the recent publicity on the demise in numbers of the Curlew, Lapwings, and others, I am writing to convey my observations on numbers [REDACTED] Strathbraan.

[REDACTED] the numbers of Curlew, and Lapwings, were very abundant .The first thing that was very noticeable was the complete absence of Ravens , and Hooded Crows ,

Since the arrival of the Ravens and Crows the numbers of Curlews and Lapwings have steadily declined.

Ravens and the Hooded Crows can be seen working the areas use by the Curlews and others for nesting and raising the young chicks, and it is pretty obvious that a large number of eggs and young chicks are falling prey to these birds.

[REDACTED] only for the ravens to strip this Strath of these afore mentioned birds.
We will not hear or see those birds in the upland hills for much longer, thanks to the unkindness of Ravens.

Yours sincerely [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Thurs 20th April 17

Dear Sir,

[REDACTED] I am writing to convey my observations of the number of Curlew and Lapwings within my area.

[REDACTED] observed lapwing and curlews hatching their chicks in good numbers, only to watch the ravens take the chicks from the fields within the first week of life. It is such a shame to see the ravens kill the chicks when we have the proper habitat for them to rear their young and thrive.

I fear if this problem is not addressed, then the song of the curlews and lapwings will become a thing of the past, which would be a terrible shame to our countryside.

Yours sincerely,

[REDACTED]

Appendix I

Proposed licence area



Mapped by:



12 May 2017





Mapped by:
 Game & Wildlife CONSERVATION TRUST
 Scotland
 12 May 2017



Mapped by:

Game & Wildlife CONSERVATION TRUST
Scotland

12 May 2017

Appendix 2.

Four contiguous maps, showing selected wader breeding areas, and seventeen 2000m wader count transects within the proposed licence boundary area. Original copies of the maps are held by the applicant.

Map 1: Sheet OL48 (East)



Map 2: Sheet OL47 (East)

Wader Areas:

These were identified using the local knowledge of the farming and keeping community for the period 2012-2016. The areas have suitable habitat and land management for waders to breed.

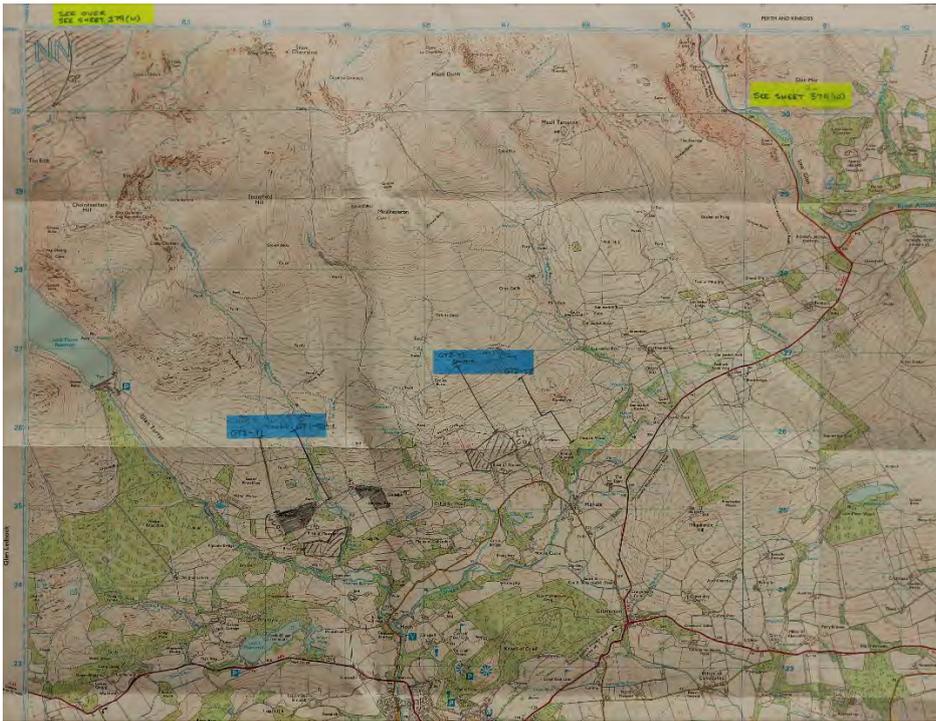
Areas marked with solid fill are 'core' areas, where wader breeding number and success (chicks observed) is regular and high from. Species present are noted beside the area.

Areas filled with 'hatching' have lower numbers of breeding waders and/or lower breeding success. Raven predation on waders has been directly noted in some of these areas. Species present are noted beside the area.

Wader Transects:

On each map, blue highlights indicate paired wader transects (total 2000m long).

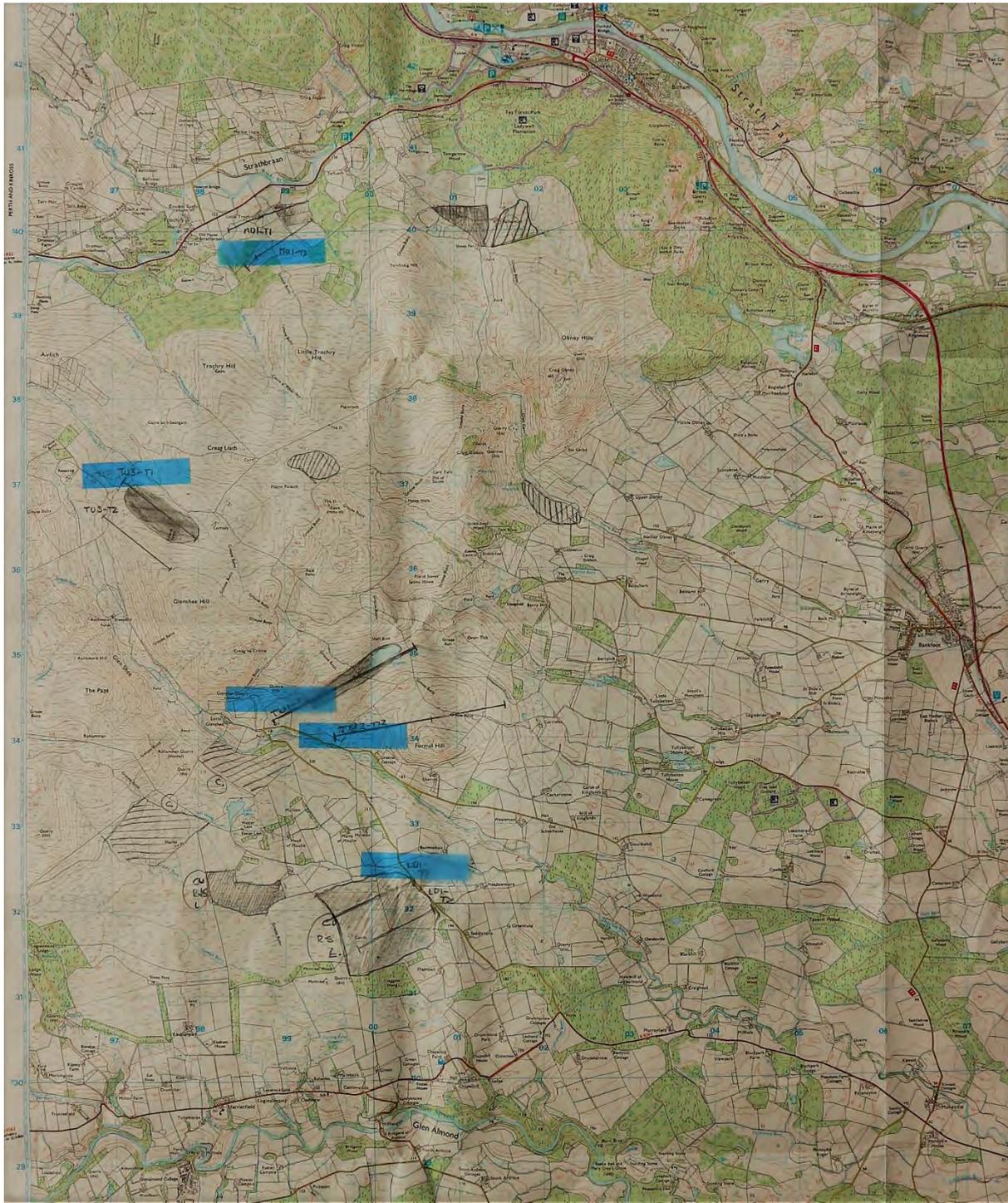
Yellow highlights areas where the maps overlap. No areas or transects sites are shown



Map 3: Sheet 379 (West)



Map 4: Sheet 379 (East)



Appendix 3: Wader count recording sheet: instructions on reverse

Wader Count (Transect or Vantage Point)

Site.....
 Observer.....
 Date.....
 Start time..... Stop time.....

Clear Calm Dry
 Partial cloud Breeze Drizzle
 Overcast Windy Rain
 [Circle applicable]

Incidental sightings:
Rapt: Eagle Buzz S'hwk Perg HH G'hwk Mer
Corvids: Raven Crow Rook Jackdaw
Birds: B'Grouse G'Part
Mammal: Br'Hare M'Hare

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Species: Curlew, Golden Plover, Dunlin, Redshank, Common Sandpiper, Lapwing, Oystercatcher, Snipe;
 e.g. CU = single, 2CU = two birds (may / may not be pair), CU² = pair
Behaviour: display, vigilance, alarm, other (describe); for SN drum / chipping or flushed
 Annotate if likely to be same bird as previous sighting, nest found, with chicks etc.

GWCT March 2017

Wader Counts

The aim is 3 counts of the maximum number of breeding pairs of wading birds, and a record of behaviour that suggest fledging success.

Date and Frequency:
 Each transect will be walked a minimum of twice, ideally three times in the period 1 week April to 1 week of June. The final count will be undertaken *not earlier* than the third week of May.

Time:
 Counts will be conducted between 0600 and 0700

Weather:
 Fair weather (low wind, no rain, mist or fog.)

Transect:
 Each transect will be located on typical breeding wader habitat, on easily walked ground. The transect should be as straight as possible. Where the transect needs to be shorter than 2000m, it can be split into 2 parts of 1000m, each part separated by at least 500m.

Each transect should be mapped at 1:25,000 scale so it can be easily repeated.

Distance:
 Each observer will walk a 2000m transect, stopping at suitable intervals (100-200m depending on roughness of terrain) to observe and record wading birds of all species.

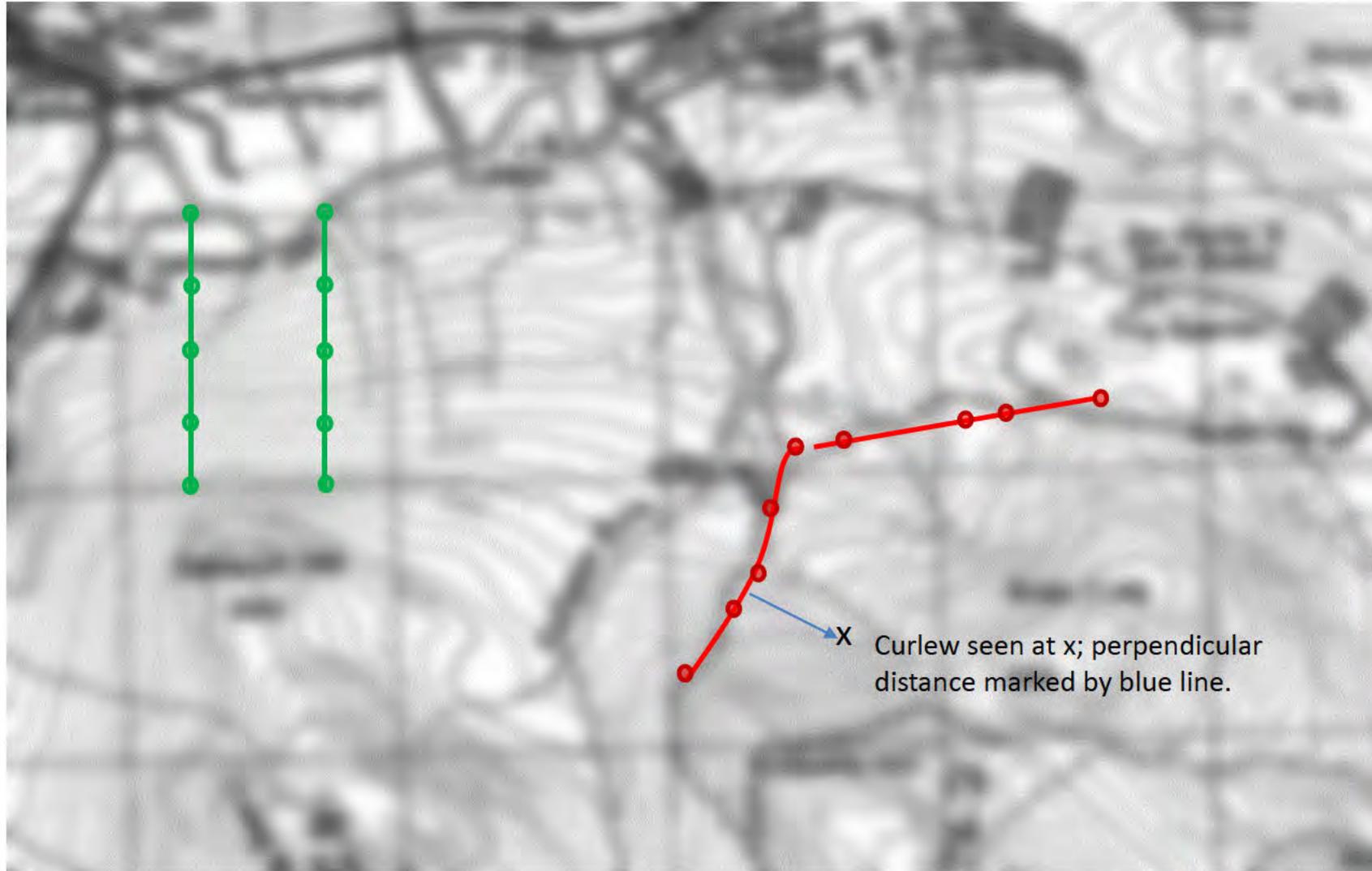
Recording:
 The number of birds, as individuals or pairs, will be recorded along with an estimated perpendicular distance from the transect line. A strong attempt should be made to avoid repeat counting the same pair twice.

During the final count (see above) attention must be paid to recording behaviour (flight, calling) and observations that indicate whether a pair has fledged young with them.



Wader Counts: 2 ways of laying out a modified BBS style transect count

Paired transects, N to S, 1000m long and 500m apart, aligned with a grid square. Note regular stopping points on open ground.



2 transects, each 1000m long with ~200m of wader habitat on each side. Note stopping points fit where easy and hard to see.

Appendix 4

Additional information on the status of the wading bird species of conservation interest

1. Species of interest:

- 1.1. Ten species of wading bird are recorded breeding in and around the 10km cell (OS 12 figure 280000,730000) in the BTO Bird Atlas 2007-11 (pp 336-387); OC, DO, GP, L., DN, SN, WK, CS, CU, RK.
- 1.2. Three species of wader are of particular interest because of local abundance and declines and national conservation importance:
 - 1.2.1. Eurasian Curlew (*Numenius arquata*) CU: Red List, Birds of Conservation Concern 4, 2015. Described as 'near threatened' by IUCN. UK responsible for 27 per cent of the world's breeding Curlews. Curlew has declined in Scotland by 57 per cent between 1995 and 2014 and a further 18 per cent between 2014 and 2015: Source: BBS 2015. Described by RSPB as 'highest conservation priority bird species in the UK.'
 - 1.2.2. Northern Lapwing (*Vanellus vanellus*) L. : Red listed as a Bird of Conservation Concern with a 57 per cent decline in Scotland between 1995 and 2014. Source: BBS 2015.
 - 1.2.3. Golden Plover (*Pluvialis apricaria*) GP: Green-listed, with losses in Scotland of 25 per cent between 1995 and 2014. Source: BBS 2015.

2. Information on size of populations of the species in this area:

- 2.1. The Applicant is undertaking counts of waders in the area, starting in spring 2017.
- 2.2. Additional data are available from site specific surveys including: Proposed Wind Farm Environmental Surveys, RSPB Wader Survey 2014, SSE Beauldy-Denny Line Ecology Survey 2016
- 2.3. CU: Understanding Predation, P173; 2013 Tayside Wader Survey Summary Report. Troup, Cunningham, Smith.
- 2.4. GP: Understanding Predation, P176; 2013 Tayside Wader Survey Summary Report. Troup, Cunningham, Smith.
- 2.5. L.: Understanding Predation, P 182; 2013 Tayside Wader Survey Summary Report. Troup, Cunningham, Smith.

3. Information on size of populations in the wider area:

- 3.1. BBS, 2015.

4. Evidence that populations of this species are declining in the area covered by the application and in the local area?

- 4.1. The BTO Bird Atlas recorded the following breeding relative abundance change:
 - 4.1.1. OC → , DO → , GP →↓, L. ↓, DN →, SN ↓, WK ↓ (breeding distribution change), CU ↓, CS →↓, RK ↓. ↑
 - 4.1.2. CU: BTO Bird Atlas, 2007- 2011. P 376, 377.
 - 4.1.3. GP: BTO Bird Atlas, 2007- 2011. P 348, 349.
 - 4.1.4. L.: BTO Bird Atlas, 2007- 2011. P 352.

Appendix 5:

Additional information on the raven predation on wading birds

1. Observations by trained practitioners (local knowledge) indicates that predation by Ravens is a significant factor in declining prey species in the licence area. The adaptive approach is being used to assess the role of that predation, in line with the common aims of the Understanding Predation project.
2. Evidence of Predation:
 - 2.1. Understanding Predation: p38, backed up by practitioner observation within the licence area (see Local Knowledge Evidence, 1 to 4, attached).
 - 2.2. Observed by practitioners: RN feed in units, with often a large flock and smaller assemblages of 7 or 8. When a food source is found, RN will call to others and the smaller units descend to make a much larger pack. This is being observed by land managers in the specified area where CU, L. and/or GP are present, with RN moving in at the point CU, L. and/or GP have eggs or young. The Ravens have been observed sweeping the area before moving on to find the next food source. It appears likely this has a negative impact on the Waders.
 - 2.3. Typically, RN are moving into the area in large sub-adult flocks where there is a food source, in this case the availability of wading bird eggs and chicks in the period April-July. Resident breeding pairs of RN foraging for food for their broods in the period April to May.

Appendix 6:

Non-lethal alternatives to conserving waders and to reducing raven predation pressure.

1. Farming practice
 - 1.1. The areas with high numbers and breeding success (core) and improvable numbers and breeding success are managed sympathetically for waders.
 - 1.2. Grazer numbers and activity is not a constraint in these areas.
 - 1.3. There is ongoing liming of in-bye pasture land primarily to enhance sheep forage productivity. Recent research suggests this may also be important in improving wader foraging.
 - 1.4. Field management, by cutting and rolling is not a constraint in these areas.
 - 1.5. Tick burdens may cause mortality in wader chicks and are likely to cause sub-lethal impacts but there is a good tick management in place throughout the area with deer control and sheep dipping.
2. Legal predator control
 - 2.1. Predator control undertaken throughout the area by trained and experienced land managers in the specified area thereby minimising losses of CU, LA and GP through predation from foxes, corvids and mustelids.
 - 2.2. 31 gamekeepers and 5 farmers are active in the area operating snare, spring traps and corvid traps.
3. Habitat manipulation
 - 3.1. Habitats in this area currently sustain high levels of wader productivity. The specified area is optimal for breeding waders, as observed using local knowledge over a consistent period. Farm areas are in SRDP AECS zone for Waders.
 - 3.2. These areas are being maintained as open habitats and so will not be affected by woodland expansion or forestry planting schemes.
 - 3.3. Controlled muirburn is practiced on the moorland areas in order to provide necessary breeding habitat and cover, thereby enhancing the breeding chances of the ground-nesting waders.
 - 3.4. It is not known if there are any wader pasture management, or wader scrape installation schemes but unmanaged rush pasture and lack of open water seems an unlikely constraint in this landscape, given the current high levels of productivity.
 - 3.5. Increasing structural complexity and height may reduce the hunting effectiveness of raven but will also likely reduce the suitability of the habitat for wading birds which prefer open habitats.
 - 3.6. Raven are also highly effective predators and habitat change, which may take a number of years, may be ineffective in reducing their foraging capability.
4. Non-lethal deterrents
 - 4.1. These have limited effectiveness and last only a short time. When Ravens identify a food source and start congregating, very little can be done to scare them and prevent predation. This response has been seen following the use of three main forms of scaring:
 - 4.1.1. Scaring devices such as 'Scary men' have been deployed at a number of sites within the licence area in an attempt to move on Raven flocks at chick fledging time.
 - 4.1.2. Gas Guns have also been used in the licence area, with land managers regularly moving them around when CU, LA and GP are at their most vulnerable because Ravens, being highly intelligent, become accustomed to their presence and the device no longer holds potency as a deterrent.
 - 4.1.3. Shooting into the air and off rocks, when it is safe to do so, have also been tried at most sites in the licence area in order to scare Ravens.

From: [REDACTED]
To: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence Application - 6 June 2017 (A2314543)
Date: 29 June 2017 09:08:37
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence Application - 6 June 2017.obr

[REDACTED]

Please see attached for info/comment. Apologies, I should have sent this sooner. It's an application developed by [REDACTED] and submitted by a collective for an adaptive management trial approach re ravens in Strathbraan.

I'm on leave until 10th July but will intend to make the final assessment that week so if you have any comments by then that would be great.

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence Application - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 07 June 2017 17:29:15
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017.obr

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number)

[REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis)

[REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

Happy to discuss in the meantime

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 08 June 2017 10:36:00
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017.obr

[REDACTED]

I ended up with the lead on research to underpin raven licensing and this now appears to be morphing in to a casework lead. [REDACTED] sent this to me with a query on whether I was the correct adviser. It's in your patch so I'm assuming you will want to take the lead on it. I've had a very quick look through the papers out of interest/noseyness and my first thoughts are that they haven't provided any info on how they undertook their co-ordinated raven count and eliminated double counting etc. The total count of 231 no-breeding birds in this fairly small area seems very high given the preliminary work BTO did for [REDACTED] gave a population estimate of around 3,200 pairs for the whole of Scotland. The BTO report also attempts to estimate the non-breeding population and states 'it may be pragmatic to assume that (at least in baseline models which do not include a licencing effect) numbers of non-breeders are similar to those of breeders.' Based on that assumption the non-breeding population in Scotland would be 6,400 birds and the population in Strathbraan would be 3.6% of the Scottish non-breeding population!

Anyway, can you let [REDACTED] and I know if you want to lead on this one.

Regards

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number) [REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis) [REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

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[REDACTED]

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 08 June 2017 11:21:00

[REDACTED]

Thanks for sending through. Easier for you and I to have a word directly, but interested to hear others views..

Cheers,

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number) [REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis) [REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

Happy to discuss in the meantime

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]@gov.scot
To: [REDACTED]
Subject: RE: Novel/contentious licence application
Date: 12 June 2017 16:14:01

[REDACTED]

Noted.

Thanks

[REDACTED]

From: [REDACTED]@snh.gov.uk]
Sent: 12 June 2017 15:10
To: [REDACTED]
Subject: Novel/contentious licence application

[REDACTED]

We have received a licence application from a group called Strathbraan Community Collaboration for Waders (SCCW). The application is for control of non-breeding ravens across a relatively large landscape unit covering a number of different farms/estates in Western Perth and Kinross. The purpose of the application is protecting lapwing, curlew and golden plover in that area. The application includes monitoring of both raven and wader populations throughout the course of the work, which is programmed to last for 5 years.

The application is being considered at the moment and I will let you know of the outcome but in the meantime if you have any queries please let me know.

Kind regards

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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Or email licensing@snh.gov.uk

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.

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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadaichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo le gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh, leig fios chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Raven application
Date: 13 July 2017 15:17:45
Attachments: Basic VP predator card-A4 update 2.doc
Rav Licence - Corvid Identification Sheet - Sept 09.pdf
Raven Count Method.docx

[REDACTED]

I think there has been a missed comm somewhere so...

Re points below:

Non-breeding raven counts

- The methodology is an extension of the vantage point approach used elsewhere, perhaps most notably at the Langholm projects.
- The extension is that multiple vantage point watches are undertaken at the same time within a time window so as to greatly reduce the chance of repeat counting.
- The approach is very similar to the foot deer count methodology. The raven count methodology makes the need for co-ordination clear in the attached survey form.
- This year the counts were undertaken on 12 sites on 31/3/17. A closing weather window meant the count time was 1000-1500. Instead of staying at one vantage point, the monitor was allowed to move within a tetrad and record the maximum number seen (as per black grouse lek counts).
- Given the relatively poor weather conditions the reports were of very little raven movement in the period (effectively each site reported just one group of ravens). There is no consistent correlation in numbers between neighbouring sites (for example from West to East: Glenturret 40, West Glenalmond 9, Glenalmond, 10, Logiealmond 40) or (Ardtalnaig 17, Remony 9, Garrows 14, Urlar 31, Lochan 34) suggesting, to me, an adequately robust count.

Breeding Ravens

- As far as I know this data hasn't been collated, mainly because the applicant agreed with you that this licence would not seek to manage the breeding population.

From: [REDACTED]@snh.gov.uk]
Sent: 21 June 2017 12:34
To: [REDACTED]
Cc: [REDACTED]@gwct.org.uk>
Subject: Raven application

Dear [REDACTED]

I've just chatted with [REDACTED] who was asking for an update on the licence application and I informed him that it was still being looked at so I just wanted to let you know that it hasn't been forgotten about and still is in progress. As a novel and detailed proposal that does mean that it inevitably takes longer to consider and I have put it to a number of colleagues within SNH for

comment and am still awaiting some of this feedback.

However, in the meantime I have had a couple of queries so I wonder if you or [REDACTED] would be able to help respond. These are as follows;

- Non-breeding raven numbers – can you provide a bit more information on how the raven counts were undertaken and particularly how you’ve eliminated or addressed potential double-counting
- Breeding raven numbers – [REDACTED] had mentioned that this info was being / has been collated, is that information available now?

I may well be back with more questions but I’ve had some comments, including the above so I wanted to put them to you straight away to give you as much time as possible to be able to answer them.

Happy to discuss

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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Or email licensing@snh.gov.uk

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.



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PREDATOR SIGHTING RECORD

MOOR:

VANTAGE POINT NAME:

DATE & TIME:

DATE /TIME	SITE	Raven, Crow or Raptor Species	Number Observed and Activity: Flying Over/Quartering/Perched		Prey species Taken (nest/chick)	Number Ravens taken



Date – self evident

Site – self evident

Crow or raptor species – Species of predatory bird seen eg: Raven, Carrion etc

Number observed and activity – total number of predatory birds in sighting and activity

Prey species taken –species of nest taken or chick killed by a predatory bird

Number ravens killed – number of species killed by keeper by trapping or shooting

Every relevant sighting is recorded. An example is given below:

Moor: Glenn Close

Vantage Point: Ben Affleck

Date: 1/4/16 1400hr – 1600hr

DATE/Time	Site	Crow or Raptor Species	Number Observed and Activity: Flying Over/Quartering/Perched		Prey species taken	Number ravens killed
1/4 – 1410hr	Flats VP count	Raven	7	Q (uartering)	-	
1/4 – 1420hr	Flats VP Count	Raven	-	-	-	
1/4 – 1500hr	Flats VP Count	Pereg	1	P (erched)	-	
<i>These cards can also be used to record other data if necessary, and should be used to record Ravens taken:</i>						
2/4	In-bye	Crow	-	-	Lapwing	
3/4	Flats	Raven	4	FO	-	1 (shot)

Corvid Identification

The following information can be used to help distinguish between ravens, crows and other corvids



On the ground

Apart from the obvious size differences, ravens have much broader bills (beaks) than crows. Crow bills are finer, with a longer, sweeping curve to the top half of the bill than a raven. Ravens also have a longer neck with ruffled, shaggy-looking throat feathers.

Ravens have a harsher, more rasping call than a crow. The different calls can be played using the RSPB web-site:

<http://www.rspb.org.uk/wildlife/birdguide/families/crows.asp>.

In flight

The tail feathers of both species tend to spread out in flight, but the crow's tail has a rounded, fan-like appearance, while the raven has a distinctive wedge or diamond shape in appearance. Only during the late summer, when the birds are moulting, will it sometimes be difficult to distinguish between them using the tail shape.

In flight, ravens have a longer neck than a crow.

The feathers at the wing-tip of a raven separate out to form very long 'fingers', with much space between them. The wing-tip feathers of a crow however, are much shorter and more closely spaced in comparison, although there are still gaps between them.

Raven Counts

Breeding Pairs

An estimated number of breeding pairs of raven in the licence area will be recorded in April-May each year.

Data will be gathered by the licence holder from the local knowledge of farmers, foresters, gamekeepers, ornithologists and will be field proofed rather than purely historical.

The data will be reported to GWCT who will maintain a raven breeding pairs database:

Date, Person, X, Y, Locn Name, Pair Y/N, Egg/Chick Y/N

Non-breeding flocks:

Timing: The number of non-breeding raven will be recorded immediately prior to wader breeding (suggested no later than 30 March each year, but taking account of local conditions) and again after the end of any raven cull period (suggested in September-October).

Vantage point counts:

Counts will be undertaken by organising co-ordinated vantage point counts. An attempt will be made to maximise the visual coverage of the licence area on two co-ordinated mornings from as many vantage points as possible. Sightings will be recorded onto standard recording forms allowing comparison of records across the area to produce a distribution and abundance estimate.

Identification charts of ravens and other corvids will be circulated.

Data:

Data will be gathered by those authorised by the licence holder. The data will be reported to GWCT who will maintain a non-breeding flock database.

Daily sightings:

These co-ordinated vantage point counts can be complimented by recording other raven sightings made during daily work. These will be recorded onto standard recording forms.

Nest predation:

Nest predation events on wading birds by ravens observed from fixed point vantage monitoring will be recorded.

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 20 June 2017 10:50:26

Thanks [REDACTED] I've just had time to skip the various attachments.

Looks an interesting application.

I suppose we need to evaluate this as a "stand alone" licence application or a proposed WfWs project. If the latter then I think we need to consider it in the evolving WfW process which will slow reaching a decision down. We've got an internal meeting next week to discuss WfW.

My inclination though is to regard it as a stand-alone licence application at this time and reach a decision on that. If we grant the licence we can consider in the WfW context in due course.

Happy to discuss but I'm sure others will have more to contribute in the context of it as a licence application. Given our risk appetite discussions we are open to considering novel approaches to these issues.

Not sure that helps, but happy to discuss further if you want.

[REDACTED]

-----Original Message-----

From [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number) [REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?
[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis)
[REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

Happy to discuss in the meantime

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 20 June 2017 07:08:33

Thanks [REDACTED]

Useful and interesting to see. I am familiar with some of the subject area, [REDACTED]
[REDACTED] My own observations would support the local knowledge evidence supplied. I am aware that there have been some inappropriate pasture management incidents reported within the subject area, including one to which [REDACTED] responded in 2015. These have been reported by gamekeepers and have involved tenanted farms.

[REDACTED] may be able to provide further observational evidence.

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 20 June 2017 16:59:06

[REDACTED]

This application is in [REDACTED] patch but having discussed it with her she is happy for me to respond to you.

Having read through the various attachments my first thoughts are that they haven't provided any info on how they undertook their co-ordinated raven count and how they eliminated double counting etc. The total count of 231 non-breeding birds in this fairly small area seems to be very high given the preliminary work BTO did on the Scottish raven population.

The modelling BTO undertook was based on SRMS data and the Atlas and produced an estimate of around 3,200 breeding pairs in Scotland. The BTO report also attempted to estimate the non-breeding population and states '*it may be pragmatic to assume that (at least in baseline models which do not include a licencing effect) numbers of non-breeders are similar to those of breeders.*' Based on that assumption the non-breeding population in Scotland would be 6,400 birds and the total raven population approximately 13,000 individuals.

If those figures are about right the applicants estimated population in Strathbraan would be 3.6% of the Scottish non-breeding population and 1.8% of the total Scottish raven population! The annual cull of 90 birds would be 1.4% of the Scottish non-breeding population.

Personally I would be very cautious about licencing the removal of this percentage of the Scottish raven population to increase the breeding success of waders within such a small area of the country.

Despite my misgivings about the numbers of birds they would like to control I can see the potential for a co-ordinated, adaptive raven control project to see if it could radically improve breeding wader success. However, this may not be the project that will best illustrate how effective that approach might be.

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

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Could I ask for comments by 21st June please

Happy to discuss in the meantime

■■■

■■■■■■ has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 21 June 2017 15:32:30

[REDACTED]

Other than the numbers of ravens they want to take my main reservation about this project is the assumption that ravens are the only cause for the decline in nesting wader numbers. They don't appear to have taken in to account that agricultural management that might be influencing the birds as well. During the period of the anecdotal reports (10 – 50 years) there may have been other factors that were also involved in the declines– stocking levels, cutting/burning regimes, drainage, tree planting. [REDACTED] e-mail refers to '*some inappropriate pasture management incidents*'. Getting more wader chicks to survive predation but then having them 'silaged' later in the season isn't going to produce the positive outcome we are looking for.

I just feel it needs a more holistic approach to produce a meaningful measure of how important raven control is to improving wader breeding success.

Regards

[REDACTED]

From: [REDACTED]
Sent: 21 June 2017 12:12
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

[REDACTED]

Thanks for this. We are expecting the first draft of the commissioned BTO work on impacts of licensed control of ravens in the next week. This should be helpful in terms of understanding what the potential impact of removing this number of birds might be.

The impacts on ravens aside, I'd be keen for your views on the project itself. In your final comment you talk about adaptive approaches to see if this can improve wader success but that this project might not best illustrate this – can you expand on why you think it might not do so?

My initial interpretation is that this does look like quite a well-coordinated and adaptive approach. If we were satisfied that the impacts on ravens might be 'acceptable', can you see the merit in the approach in terms of being able to assess whether or not raven control might be a beneficial management technique to improve wader breeding success?

[REDACTED]

From: [REDACTED]
Sent: 20 June 2017 16:59

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

[REDACTED]

This application is in [REDACTED] patch but having discussed it with her she is happy for me to respond to you.

Having read through the various attachments my first thoughts are that they haven't provided any info on how they undertook their co-ordinated raven count and how they eliminated double counting etc. The total count of 231 non-breeding birds in this fairly small area seems to be very high given the preliminary work BTO did on the Scottish raven population.

The modelling BTO undertook was based on SRMS data and the Atlas and produced an estimate of around 3,200 breeding pairs in Scotland. The BTO report also attempted to estimate the non-breeding population and states '*it may be pragmatic to assume that (at least in baseline models which do not include a licencing effect) numbers of non-breeders are similar to those of breeders.*' Based on that assumption the non-breeding population in Scotland would be 6,400 birds and the total raven population approximately 13,000 individuals.

If those figures are about right the applicants estimated population in Strathbraan would be 3.6% of the Scottish non-breeding population and 1.8% of the total Scottish raven population! The annual cull of 90 birds would be 1.4% of the Scottish non-breeding population.

Personally I would be very cautious about licencing the removal of this percentage of the Scottish raven population to increase the breeding success of waders within such a small area of the country.

Despite my misgivings about the numbers of birds they would like to control I can see the potential for a co-ordinated, adaptive raven control project to see if it could radically improve breeding wader success. However, this may not be the project that will best illustrate how effective that approach might be.

[REDACTED]

-----Original Message-----

From: [REDACTED]

Sent: 07 June 2017 17:29

To: [REDACTED]

Cc: [REDACTED]

Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

■■■ - can you please log this onto the database (and incorporate a licence number) ■■■ - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

■■■■■■■■■■ - to note as a novel licence application (I will also inform ■■■ of the application on this basis) ■■■■■■ - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

Happy to discuss in the meantime

■■■

■■■■■■ has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 22 June 2017 18:00:00

[REDACTED]
Might be worth a word if you can catch me next week (or before you go on leave whenever that might be). Looking closely at the maps supplied and some of the gaps thereon made me wonder about co-ordination issues - I am led to believe there may be some questions about effectiveness of communication and collaboration (although some are probably down to limited keeping capacity) - possibly more of an issue/support requirement for a WfW 'pilot' project than a licence application on its own merits (though I also understand the weather conditions on the short-notice appointed co-ordinated count day were not best suited to extensive VP views).

I did some Bird Atlas recording on an upland/marginal square just outside the subject area...from memory there were others within it (and BBS squares) that were already assigned...do you access these sources for this purpose?

[REDACTED]
-----Original Message-----

From: [REDACTED]
Sent: 20 June 2017 07:08
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Thanks [REDACTED],
Useful and interesting to see. I am familiar with some of the subject area, [REDACTED]. My own observations would support the local knowledge evidence supplied. I am aware that there have been some inappropriate pasture management incidents reported within the subject area, including one to which [REDACTED] responded in 2015. These have been reported by gamekeepers and have involved tenanted farms.

Other colleagues who live within the area may be able to provide further observational evidence.

[REDACTED]
-----Original Message-----

From: [REDACTED]
Sent: 07 June 2017 17:29
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number) [REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis) [REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

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 has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: Re: Raven application
Date: 23 June 2017 09:40:36

Hi [REDACTED]

Thank you for the update.

I will get back to you with answers to your questions as soon as I can.

Thanks, [REDACTED]

Sent from my iPhone

On 21 Jun 2017, at 12:34, [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)> wrote:

Dear [REDACTED]

I've just chatted with [REDACTED] who was asking for an update on the licence application and I informed him that it was still being looked at so I just wanted to let you know that it hasn't been forgotten about and still is in progress. As a novel and detailed proposal that does mean that it inevitably takes longer to consider and I have put it to a number of colleagues within SNH for comment and am still awaiting some of this feedback.

However, in the meantime I have had a couple of queries so I wonder if you or [REDACTED] would be able to help respond. These are as follows;

- <!--[if !supportLists]--> <!--[endif]-->Non-breeding raven numbers – can you provide a bit more information on how the raven counts were undertaken and particularly how you've eliminated or addressed potential double-counting
- <!--[if !supportLists]--> <!--[endif]-->Breeding raven numbers – [REDACTED] had mentioned that this info was being / has been collated, is that information available now?

I may well be back with more questions but I've had some comments, including the above so I wanted to put them to you straight away to give you as much time as possible to be able to answer them.

Happy to discuss

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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Or email licensing@snh.gov.uk

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Tha am post-dealain seo agus fiosrachadh sam bith na chois dìomhair agus airson an neach no buidheann ainmichte a-mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsear-siostaim no neach-sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.

From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)
Date: 28 June 2017 08:50:00

My response to [REDACTED]

Regards

[REDACTED]

From: [REDACTED]
Sent: 21 June 2017 15:32
To: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

[REDACTED]

Other than the numbers of ravens they want to take my main reservation about this project is the assumption that ravens are the only cause for the decline in nesting wader numbers. They don't appear to have taken in to account that agricultural management that might be influencing the birds as well. During the period of the anecdotal reports (10 – 50 years) there may have been other factors that were also involved in the declines– stocking levels, cutting/burning regimes, drainage, tree planting. [REDACTED] e-mail refers to '*some inappropriate pasture management incidents*'. Getting more wader chicks to survive predation but then having them 'silaged' later in the season isn't going to produce the positive outcome we are looking for.

I just feel it needs a more holistic approach to produce a meaningful measure of how important raven control is to improving wader breeding success.

Regards

[REDACTED]

From: [REDACTED]
Sent: 21 June 2017 12:12
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

[REDACTED]

Thanks for this. We are expecting the first draft of the commissioned BTO work on impacts of licensed control of ravens in the next week. This should be helpful in terms of understanding what the potential impact of removing this number of birds might be.

The impacts on ravens aside, I'd be keen for your views on the project itself. In your final comment you talk about adaptive approaches to see if this can improve wader success but that this project might not best illustrate this – can you expand on why you think it might not do so?

My initial interpretation is that this does look like quite a well-coordinated and adaptive approach. If we were satisfied that the impacts on ravens might be 'acceptable', can you see the merit in the approach in terms of being able to assess whether or not raven control might be a beneficial management technique to improve wader breeding success?

■

From: ■
Sent: 20 June 2017 16:59
To: ■
Cc: ■
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

■

This application is in ■ patch but having discussed it with her she is happy for me to respond to you.

Having read through the various attachments my first thoughts are that they haven't provided any info on how they undertook their co-ordinated raven count and how they eliminated double counting etc. The total count of 231 non-breeding birds in this fairly small area seems to be very high given the preliminary work BTO did on the Scottish raven population.

The modelling BTO undertook was based on SRMS data and the Atlas and produced an estimate of around 3,200 breeding pairs in Scotland. The BTO report also attempted to estimate the non-breeding population and states '*it may be pragmatic to assume that (at least in baseline models which do not include a licencing effect) numbers of non-breeders are similar to those of breeders.*' Based on that assumption the non-breeding population in Scotland would be 6,400 birds and the total raven population approximately 13,000 individuals.

If those figures are about right the applicants estimated population in Strathbraan would be 3.6% of the Scottish non-breeding population and 1.8% of the total Scottish raven population! The annual cull of 90 birds would be 1.4% of the Scottish non-breeding population.

Personally I would be very cautious about licencing the removal of this percentage of the Scottish raven population to increase the breeding success of waders within such a small area of the country.

Despite my misgivings about the numbers of birds they would like to control I can see the potential for a co-ordinated, adaptive raven control project to see if it could radically improve breeding wader success. However, this may not be the project that will best illustrate how effective that approach might be.

■

-----Original Message-----

From: [REDACTED]

Sent: 07 June 2017 17:29

To: [REDACTED]

Cc: [REDACTED] ndlay

Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017 (A2314543)

Folks

Attached is an application for a landscape-scale project for raven control in order to conserve wader populations.

[REDACTED] - can you please log this onto the database (and incorporate a licence number) [REDACTED] - I'd be grateful for any comments from an ecological perspective please. I am assuming that you are the correct adviser?

[REDACTED] - to note as a novel licence application (I will also inform [REDACTED] of the application on this basis) [REDACTED] - to note in relation to potential links to WfW and UP.

Could I ask for comments by 21st June please

Happy to discuss in the meantime

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation purposes - Licence Application and associated documents - 6 June 2017" (A2314543) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: Licence in Strathbraan
Date: 29 June 2017 08:55:44

Random thoughts

- [REDACTED] needed to assess science base to the application.
- NWCU and Police Scotland consulted for intelligence on estates covered.
- Gas gun use on the hill should stop?
- Anecdotal evidence of the intensification of grouse sport shooting and prevalence of partridge release providing a raven food resource supporting overwinter survival and retention of ravens in the area.
- Recent evidence of redshank fields being cultivated during the breeding season.
- Has there not been an upward change in grouse numbers? Bags, breeding data etc available? Against a background of raven presence increase. This may be encouraging the build-up of a raven population allied to partridge releases retaining birds.
- [REDACTED]
- [REDACTED]
- Suggest you make [REDACTED] aware.
- This is an area which can be identified where the expansion of pine marten has not occurred, noticeable as a [‘hole in the map’](#) (fig8)

That’s my list at present [REDACTED]

~~~~~

[REDACTED]

~~~~~

From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)
Date: 20 July 2017 11:49:00
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence Application - 6 June 2017.obr
Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017.obr

[REDACTED]

Apologies - meant to send this to you too.

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 20 July 2017 11:48
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Folks

Thanks for your input/comments on the licence application for Strathbraan. I've now considered these and drafted an assessment of the application. Assessment and the original application are attached.

If you have any final comments on this then could I please have them by 5th August. I can then finally collate any remaining queries/points of clarification from the applicant the following week.

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017" (A2357210) from Objective.

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Strathbraan raven application – Assessment and discussion

Background

This licence application has been submitted by [REDACTED] on behalf of *Strathbraan Community Collaboration for Waders* (SCCW). It is sought to kill ravens for the purpose of conserving wild birds, particularly curlew, lapwing and golden plover. Control is proposed between March and mid-July and the intention is to have licenced control for a period of five years to allow an assessment of the impacts.

The licence was submitted on 6th June 2017 and was seeking permission for control from 1st March 2017 until 16th July 2017 and the same period in 2018.

The proposal is billed as an adaptive management approach and in keeping with the outcomes of *Understanding Predation* and, more recently, *Working for Waders*. It is proposing removal of c.40% of the estimated non-breeding population of ravens from an area of around 50,000 Ha (500 sq km). For 2017 this would have been 92 ravens proposed to be removed between March 1st and July 16th, this period chosen on the basis that it covers the period during which those species are most vulnerable and would permit the control of ravens in the build-up to the wader breeding season.

The boundaries of the proposal area are chosen to represent a ‘landscape-scale’ and collaborative project covering a range of landholdings. They have been drawn-up around known wader populations and the exact boundaries then follow key landscape features (roads, administrative boundaries etc.).

The rationale of the proposal is that the area supports a number of important areas for breeding waders and specifically curlew, golden plover and lapwing (on BTO’s red-list and focal species of *Understanding Predation*), and that raven control could help safeguard and boost productivity of the ‘core’ populations. Specifically there are 3 stated objectives:

- *Maintaining and/or improving existing populations of CU, L and GP in the defined area, notably by conserving breeding success of these conservation listed species.*
- *Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.*
- *Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.*

In order to help measure whether these objectives are being met there is a programme of monitoring proposed (and already underway) based on a series of transect and point counts, carried out by participants, to count ravens as well as wader abundance and breeding success. The methodology for this has been devised by [REDACTED] of GWCT. This monitoring commenced in April 2017.

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)
Date: 21 July 2017 09:07:06
Attachments: RE Wading birds and farming - nest damage.msg

[REDACTED]
Thanks. I support [REDACTED] overall comments on the approach taken in the assessment.

With respect to potential benefits to red grouse from the proposal, the converse also applies i.e. that waders of conservation concern benefit from the legal predator control already undertaken to benefit grouse. I am not sure it would be either rational or reasonable to treat such secondary benefits differently.

On the issue of gas-gun, it is possible that the justification for their use as an alternative solution would be removed, or at least reduced, as a result of the proposed licence. It might be worth seeking further information on the nature of their deployment (geographic and temporal) within the area of the proposal and considering what impact this (or any changes in that pattern) might have on the hypotheses to be tested...and whether any conditions should be applied in order to separate potential effects.

On the issue of non-wader friendly agricultural operations, [REDACTED] that the incident referred to in the attached correspondence, occurred within the subject area. I also am also anecdotally aware of similar instances on another estate within the area. In both instances the operations were undertaken on tenanted farms not under the direct control of the applicant members of the Strathbraan group. This presents a number of wider practical issues for both ground-nesting bird conservation and licensing at landscape scale. Given the basis of your assessment of the current application, there may be an opportunity in finalising the monitoring aspects to use it to better understand the scale and nature of these issues and in what ways/ to what extent collaborative initiatives such as this can help address them.

Hope this is helpful.

[REDACTED]
-----Original Message-----

From: [REDACTED]
Sent: 20 July 2017 16:56
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

[REDACTED] I'll leave others to comment on the more technical detail but in general I think you've followed, and set out, a logical process to reach your conclusion. As you comment it is also in line with the Working for Waders initiative underway and the less risk averse approach we should be taking to our work.

As you are I'm relaxed about the multiple objectives - it doesn't really matter if this is being done primarily for grouse provided it meets our conservation objectives.

I suppose inherent in it is our confidence in how they will undertake the coordination and monitoring necessary to underpin the adaptive management approach proposed. I assume that any licence will be conditional and that in the event the essential components don't go as promised then any license issued can be rescinded?

[REDACTED]
-----Original Message-----

From: [REDACTED]
Sent: 20 July 2017 11:48

To: [REDACTED]

Cc: [REDACTED]

Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Folks

Thanks for your input/comments on the licence application for Strathbraan. I've now considered these and drafted an assessment of the application. Assessment and the original application are attached.

If you have any final comments on this then could I please have them by 5th August. I can then finally collate any remaining queries/points of clarification from the applicant the following week.

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017" (A2357210) from Objective.

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Wading birds and farming - nest damage
Date: 15 June 2015 10:31:00

Thanks...just catching up.

Nothing substantive to add to what [REDACTED] says (he's seen the RSPB response to a similar enquiry– which was also sent to NFUS and SGRPID – from the same source. [REDACTED] [REDACTED])...but wonder how we might be going about building our understanding of the extent of potentially 'reckless' agricultural operations?

[REDACTED]

From: [REDACTED]
Sent: 12 June 2015 15:39
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Wading birds and farming - nest damage

Thanks [REDACTED]

[REDACTED] – anything you think we should add to our position?

[REDACTED]

From: [REDACTED]
Sent: 08 June 2015 10:54
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Wading birds and farming - nest damage

All,

It would be helpful to reach and share a corporate position on this topic. I haven't seen the most recent query, but the SGA flagged this up with me.

In essence it relates to how some ongoing agricultural practices are negatively influencing the breeding success of some of our ground nesting birds and what SNH is doing to highlight and influence this...

After a brief discussion with [REDACTED], we thought that:

1. Encouraging prompt reporting to WLOs/Police Scotland where good evidence of nest losses exists and offences have been committed.
2. Also to build our own understanding of the extent of the problem so it can be raised with farming organisations through established stakeholder engagement channels.

[REDACTED]

I am also not sure how this should be progressed/raised with SGRPID bearing in mind the removal of SMR2 from cross compliance though...

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: 08 June 2015 10:08
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Wading birds and farming - nest damage

[REDACTED]

This is your policy area so it would be helpful to get your input to the questions. However, it seems to relate to similar questions dealt with by [REDACTED] recently.

[REDACTED] – can you advise how we should handle this to ensure consistency with the messages issued to our previous enquirer? I wasn't sighted on our response so perhaps this one would be better dealt with by someone who was?

[REDACTED]

From: [REDACTED]
Sent: 08 June 2015 10:03
To: [REDACTED]
Cc: [REDACTED]
Subject: Wading birds and farming - nest damage

[REDACTED]

This arrived while I was on my casework site visit on Friday. I will have little capacity to deal with it this week. If one of the others on our team could respond, that would be great; otherwise I'll pick it up on my return to the office on 15 June.

Thanks

[REDACTED]

From: ENQUIRIES
Sent: 05 June 2015 09:24
To: [REDACTED]
Subject: FW: Wading birds and farming.

Good Morning [REDACTED]

The attached e-mail has been received via our Public Enquiries website. Please respond directly to the enquirer or pass to the appropriate officer. Please keep [REDACTED] informed should there be any change to who is dealing with this enquiry.

Kind regards,

[REDACTED]

[REDACTED]

[REDACTED]

■ [REDACTED]

■ [REDACTED]

 www.snh.gov.uk

For service delivery queries email: INVERNESS_SERVICE_DELIVERY_TEAM@snh.gov.uk

 Please consider the environment before printing this e-mail.

From: [REDACTED]
Sent: 04 June 2015 21:18
To: ENQUIRIES
Subject: Wading birds and farming.

Hello,

[REDACTED] a query that I thought the SNH might be able to answer for me.

Given the well known recent declines in Scotlands wading bird numbers, what action has SNH taken to ensure that farming activities are being satisfactorily monitored, and that the farming industry is aware of its duty of care regarding said wading birds during field operations within the main nesting season?

If none, Why not?

And lastly, What action would you take in a situation where multiple nests and their contents where recklessly destroyed during field operations which could have been reasonably delayed or modified so as to reduce their impact on these birds? and what impact could actions such as these have on the farmer in question?

Kind regards, [REDACTED]

The application

Assessment

The licence assessment is split into three parts: licensable purpose, the absence of other satisfactory solutions, and the impact on conservation status of the target species (raven). These are discussed in more detail below;

1. Licensable purpose

This proposal could potentially be licensed for the purposes of *science, research or education*, or for *conserving wild birds*. Given the novelty of the application (this is the first formal application of this kind for some time, and it has not been previously licensed), its adaptive nature and that we must acknowledge that we do not know how effective it will be in achieving the main objective (conservation), then it seems most appropriate to licence this under the former purpose.

In licensing for this purpose we should be assured that there is a clear hypothesis being tested, that it is one that is worthwhile to test (i.e. that the potential value of the information gained is meaningful and that it outweighs the potential impacts on the target species), and that the proposal is sufficiently robust to test it i.e. to yield useful results.

In these terms the first two objectives at least could be considered to be hypotheses being tested here. i.e. will raven control provide maintain or improve populations of the species involved and can this be done without affecting the wider conservation status of ravens.

In terms of the *value* of carrying out the work, the proposal seems reasonable: it is looking at potential means of helping maintain or improve populations of species that are suffering dramatic declines (red-listed on the BTOs *Birds of Conservation Concern*). The potential causes of these declines are manifold, but predation is one potential factor and it appears as though the other key factors, habitat quality/suitability and management, is not likely to be an issue (although note comments under point 2 below). Further, this trial and the collaborative approach proposed fits well with some of the themes arising from *Understanding Predation* and the subsequent *Working for Waders* workshops including those of exploring licensing or other management options, gathering evidence and work on wader hotspots. A number of scientific studies have been carried out to look at the effectiveness of legal predator control (either 'non-protected' species and/or control of species permitted to be taken under General Licence) on ground nesting birds, but very few, other than correlative studies, have examined potential impacts of ravens. This work would help to build this information. It is important however to acknowledge that the proposal does not have the full scientific rigour that might be expected from an 'academic' project. That said it should be able to provide indicative information, at a low level of risk and in line with adaptive management principles. Key to this is ensuring that the requisite data is and will continue to be gathered.

When assessing the potential value of the work, this should be considered against the potential impacts on the target species. These are covered in Part 3 of this assessment, but in summary it appears likely that the overall impacts in this respect would be quite low and the adaptive nature of the proposal should provide an additional safeguard to ensure that this is the case.

It is worthwhile noting that this is just one approach that should help feed into the pool of knowledge and experience being developed and assimilated under the banner of *Working for Waders*. This approach should help improve our understanding of interactions between ravens and waders but this should be seen in conjunction with other strands of this work. If successful then it may merit rolling out the approach more widely but it would seem appropriate in the meantime and at least initially to use this as a trial.

In terms of the robustness of the approach, the effectiveness of the collaboration between the participants will be crucial. This is particularly important in terms of the gathering of the data that will help inform success or otherwise of the project. The application states that data collection has already taken place this year, or was programmed, so a test of this will be to seek confirmation from the applicant that this has been gathered and to the appropriate standard. This is particularly important because this year's data will form an important baseline against which success against the objectives may be measured in future years. **Action – Ascertain prior to final licence decision, that count data for 2017 has been collected as proposed.**

Subject to these issues being addressed I would consider that Science and Research is both a valid purpose and the most relevant. Although the proposal is not a formal or commissioned piece of pure research carried out by an academic institution or scientific body I would consider that it can provide useful information to inform the debate over both predator control and wader conservation and that these benefits can outweigh the impacts.

2. No other satisfactory solution

When considering this test in relation to this being a research project a potential alternative solution could be a full-blown scientific project carried out by an academic institution or organisation. However, this would be dependent on acquiring likely significant sums of money to fund the research and at a time where the pressure on budgets is high this project presents a reasonable alternative and one that helps build on the collaborative theme, adaptive management and that of citizen science, all of which were emerging themes arising from *Understanding Predation*.

Alternative means of potentially improving the conservation/populations of these species in these locations would include ensuring that all other legal means of predator control is being carried out and that the habitats are both suitable and being suitably managed for those species. It is our understanding from the application that this is the case.

Comments from within SNH have suggested that in at least one location within the licence area there have been reported instances of 'rolling' of fields containing wader nests/eggs/young. It is understood that this may have been undertaken by tenant farmers and the most recent record of this appears to have been in 2015. Any such activity could constitute an offence and therefore should be reported to the Police. However, whilst we appreciate that it is not possible for a licence-holder to control or be responsible for the actions of all people who work or live in the area covered by the licence we should expect them, to the best of their endeavours, ensure that these activities

are not repeated and that, if such operations are witnessed again that they are reported to the Police and to SNH.

Action – Any licence granted would include condition to this effect.

3. Conservation impact

The proposal as it stands was for the control of 92 ravens in 2017. This was based on a figure of 40% of the estimated total population for the licence area. This estimate was gathered during a series of counts undertaken over one day in March 2017. The 40% figure stems from a historic generic piece of internal advice from SNH about potential numbers of non-breeding birds that can be removed from a population without having long-term impacts on the breeding population.

The proposal is to remove ravens from flocks in order to try to avoid taking breeding birds.

In order to assess the potential impact of control of this number of birds I have used the BTO's work '*Population modelling for the Scottish Northern Raven population*', which was recently commissioned by SNH to look at the potential impacts of licensed control of ravens in Scotland (and is currently at final draft stage). The broad conclusion of this document was that licenced control of 200 non-breeding birds p.a. in a 10,000 km² area would represent a maximum sustainable take.

The report examined current levels of licensed control on the basis of 100km grid squares (each therefore covering 10,000km²). The average annual level of licenced control in this area of Scotland over the past 3 years was 27 birds per 10 000km². Adding a proposed 92 birds would bring this figure to 119, which is below the estimated sustainable take. Whilst this would mean that the pro-rata level of take would be significantly higher within the project area, this would be the case for any licence (because they generally operate at a restricted geographical range), so it is appropriate to consider this at a larger e.g. 100 km grid square level

Given the above, and assuming a similar figure for 2018 (because a new bag limit would be calculated based on counts in early 2018, over this area of c.500 sq. km, we can be reasonably content that removal of c.90 birds per. annum would be sustainable.

Risks

Purpose - Whilst the proposal appears to fit well with the aspirations of *Understanding Predation* and *Working for Waders**, some may view this as a proposal aimed at increasing grouse numbers. Whilst this may possibly arise as a consequence of the proposed activities, the proposal is so designed and framed (and for the reasons outlined above) to provide a useful trial of an approach to address real conservation concerns over wader declines. Furthermore the impact of the licensed activities on ravens appears sustainable.

*Note – that this proposal, whilst having alignment with *UP* and *WfW*, is not part of either.

Wildlife crime – It is appropriate to consider the issue of *trust* when assessing licence applications, particularly when considering more novel or contentious cases. There have been some records of wildlife crimes and incidents of loss of tagged raptors on some of the area covered by the application. However, none of these have led to criminal proceedings and there are no General Licence restrictions either in place or in the notification process covering this land at the time of this

Has raven counting catered for potential double-counting?	Clarification sought from applicant on this issue. Response was that count data does not indicate likely double-counting. However, it does seem as though future counting could be better coordinated to further minimise this risk.
Concerns over potential impacts of control on raven populations	See conservation impact section above – reviewing this in light of recent report information means that control at a level around that proposed is unlikely to affect overall raven populations. Count data, including that for breeding birds (which should not be targeted in the proposal) should also help monitor this.
Are we certain that there is full collaboration/commitment on the ground?	Prior to any licence being granted this will be ascertained. Reporting during the course of any licence to confirm collection of appropriate data at appropriate times will also be a condition of the licence.

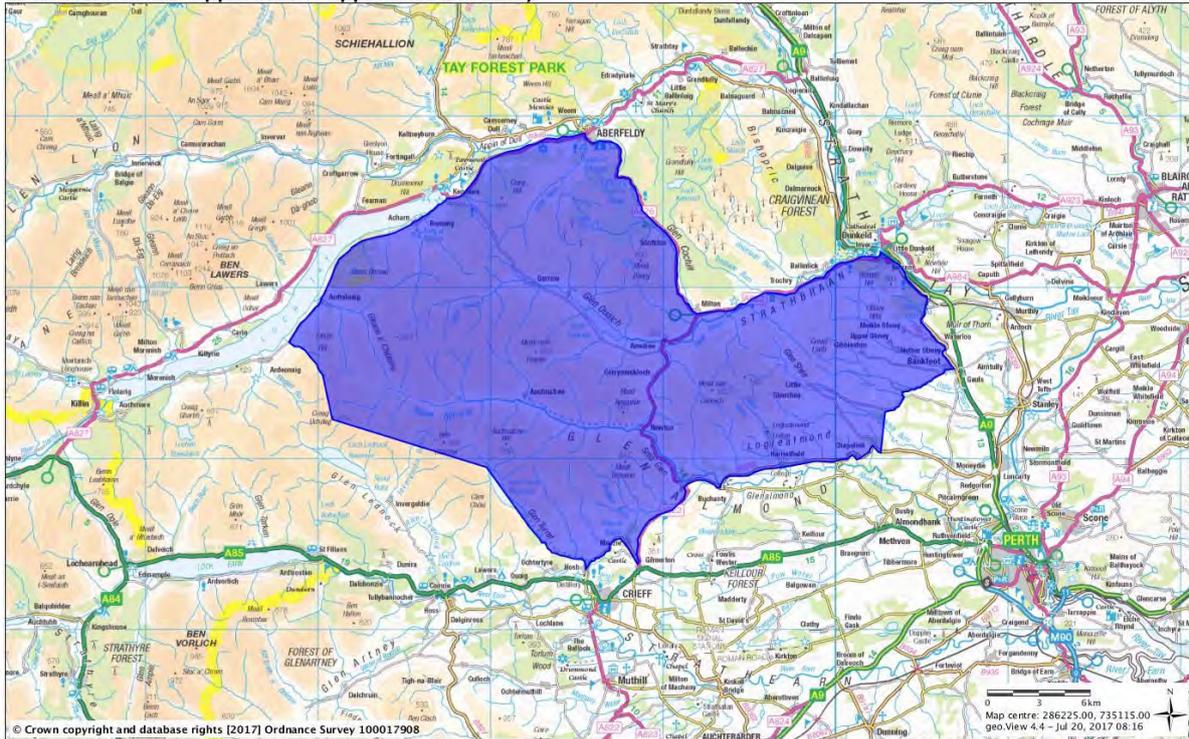
Conclusion

Subject to the above outstanding issues being resolved, and particularly the guarantee of continued commitment to gathering the requisite information, then the proposal meets the relevant licensing tests and should be licensed. This is a novel area of licensing and could be considered as contentious but in reality the impact on raven populations (as a green-listed species) should be minimal but it should help contribute to our understanding of relative impacts of raven control on red-listed wader populations that are in serious decline. As well as helping in this respect it will also serve as a useful exercise to explore the feasibility of more collaborative / *citizen science* / adaptive management-type approaches in future.

██████████

██████████ 10 August 2017

Strathbraan Raven Application - Application Boundary



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 Scottish Natural Heritage
 Dualchas Nàdar na h-Alba

From: [REDACTED]
To: [REDACTED]@gwct.org.uk
Subject: Strathbraan licence application
Date: 20 July 2017 11:40:00

Dear [REDACTED]

I wanted to give you an update re. the licence application.

Firstly I should apologise over the length of time taken for us to assess the application – as I have said before, there was always the risk that this would be the case on a novel approach such as this, whilst at the same time the application has coincided with a very busy period of time for the licensing team. Additionally we have just received the draft of the BTO raven report and it sets a very useful background against which the application is assessed. I know this means that the back end of the potential licensing period has now passed and that there will be some disappointment over this. However, as I said, the factors above always meant that turnaround in this time-period would be a big ask and I'm most keen to make sure that any potential issues are all ironed out in the first instance.

I have consulted colleagues within SNH on the application, pulled together their responses and looked at this in line with the draft BTO report and now drafted an assessment of the application based on this information. I've just put this back to colleagues for their consideration and clarification of a few points from them – I hope to have all of these collated over the next couple of weeks and will get back to you early August. This will no doubt include a request for clarification on a few points from yourselves but I think that was always to be expected.

All the best

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 20 July 2017 11:48
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Folks

Thanks for your input/comments on the licence application for Strathbraan. I've now considered these and drafted an assessment of the application. Assessment and the original application are attached.

If you have any final comments on this then could I please have them by 5th August. I can then finally collate any remaining queries/points of clarification from the applicant the following week.

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017" (A2357210) from Objective.

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From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)
Date: 03 August 2017 16:37:00

Hi [REDACTED]

You may not have seen this one. I was going to say I'll speak to you tomorrow but an autoreply reminds me that Monday 7th will be the next available opportunity. I will endeavour to speak then.

Best wishes

[REDACTED]

From: [REDACTED]
Sent: 21 July 2017 15:29
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Thanks [REDACTED]

I don't think I'm a key player in this case but the application area is in T&G. In that regard I guess [REDACTED] The area involved is managed principally for sport shooting of grouse, not for wading birds. I'm sure everyone you have circulated knows or will have heard that wading birds are in some cases incidental beneficiaries of management for grouse and other gamebirds. I rely on others in SNH to advise you on the veracity of evidence from the applicant that waders are in decline in this particular area as a result of the actions of ravens, and that killing ravens will resolve that decline, rather than ravens are to be shot simply because ravens are predators. I wasn't clear if ravens are to be trapped or shot. If the licence is to be granted for the purpose of science, research or education then we must be very robust in its scientific veracity therefore, before, during, and after, data on wading bird target species are key. Are we, can we, be confident that the applicant has the resources to gather the data and that data collection will be appropriate, rigorous, and quality assured - because for corporate risk reasons we need to be.

And again for corporate risk reasons I think it vital that [REDACTED] gets information from NWCUC so that the judgement of *trust* you mention can be better founded.

The point I raised earlier about other mechanisms of loss of wader nests is touched upon by [REDACTED]. Removing the detrimental actions of man from the equation would seem to be an obvious first step in improving wader breeding performance rather than culling another protected species under licence.

I see that to an extent I am restating 'in my own words' comments made by [REDACTED] and [REDACTED] so I'm going to stop now.

I will look on with interest to see how this develops.

Cheers

■

-----Original Message-----

From: ■

Sent: 20 July 2017 11:48

To: ■

Cc: ■

Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Folks

Thanks for your input/comments on the licence application for Strathbraan. I've now considered these and drafted an assessment of the application. Assessment and the original application are attached.

If you have any final comments on this then could I please have them by 5th August. I can then finally collate any remaining queries/points of clarification from the applicant the following week.

■

■ has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017" (A2357210) from Objective.

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)
Date: 03 August 2017 18:52:02

[REDACTED]

Thanks for sending your assessment of this application for comment.

I agree that the only licensable purpose for this application is research etc. as there is no clear proof it will lead to any conservation benefits for waders.

I do have concerns over whether the proposal is sufficiently robust to test the hypothesis that raven control will improve the breeding success of waders. The application has very little hard evidence that ravens are having an adverse impact on the breeding success of waders in the area and doesn't really control for other factors, particularly agricultural management before and during the raven control.

I'd be a lot happier if they had done two years of survey work for ravens and waders prior to the licensed control, had some reasonable evidence that raven predation was a key factor in wader success and had some kind of formal agreement with the farmers about management during the period of the licence.

The information from [REDACTED] on wildlife crime incidents in the area also raises real concerns over whether this a suitable area for such a high profile and possibly controversial project.

Regards

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 20 July 2017 11:48
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017 (A2357210)

Folks

Thanks for your input/comments on the licence application for Strathbraan. I've now considered these and drafted an assessment of the application. Assessment and the original application are attached.

If you have any final comments on this then could I please have them by 5th August. I can then finally collate any remaining queries/points of clarification from the applicant the following week.

[REDACTED]

[REDACTED] has sent you a link to "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017" (A2357210) from Objective.

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August 2017 - Email exchange (edited to remove Obj Refs to other protectively marked OFFICIAL SENSITIVE material) wrt connections between Strathbraan Community Collaboration for Waders and Tayside & Central Scotland Moorland Group (formerly Earn/Almond/Tay Grouse Group).

From: [REDACTED]
Sent: 07 August 2017 17:07
To: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017

Thanks [REDACTED], noted. I suggest it would be best if you just declared an interest in relation to this application and kept out of the decision making process. I've no doubt at all that you'd play it straight but it's that "perception of a conflict" that can catch folk out! Whatever the outcome it will be contentious and our internal process might well be scrutinised and challenged.

Cheers,

[REDACTED]

-----Original Message-----

From: [REDACTED]
Sent: 04 August 2017 18:38
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Assessment - 20 July 2017

[REDACTED]

[REDACTED]

[REDACTED]

From: [REDACTED]@gov.scot
To: [REDACTED]
Subject: Re: Novel/contentious licence application
Date: 16 August 2017 11:15:36

[REDACTED]

Thanks. Note what you say about sea eagle licensing. Is [REDACTED] involved with that group?

[REDACTED]

[REDACTED] | Scottish Government | [REDACTED]

Sent from my BlackBerry 10 smartphone

From: [REDACTED]
Sent: Tuesday, 15 August 2017 12:16
To: [REDACTED]
Subject: RE: Novel/contentious licence application

Thanks [REDACTED]

If they did then we would have to consider the application on its merits – a good and very similar application may help lend weight to any conclusions but it may be prudent to give this a year to see how well or otherwise it works. I would hope that the working for waders work, and particularly some of the work-groups arising from it, will help to provide oversight and visibility that will help to manage expectations in this respect and, if appropriate, to look for where replicating approaches is useful.

In terms of future novel/contentious licensing casework can I just check that you are aware of the potential for future applications coming in for nest manipulation for white-tailed eagles on the west coast? I know that there is SGRPID involvement in the management group and that these issues have been very much at the forefront of their discussions, but wasn't sure of how up-to-speed you are. My understanding is that there may be one site where a strong application could be made for removing a nest from adjacent to a farm where there is very good documentation in terms of lamb production and predation.

[REDACTED]

From: [REDACTED]@gov.scot [mailto:[REDACTED]@gov.scot]
Sent: 15 August 2017 11:56
To: [REDACTED]
Subject: RE: Novel/contentious licence application

Thanks [REDACTED] No objection from me, though a question – what happens if another group comes along and wants a licence for a similar purpose – on research grounds?

[REDACTED]

[REDACTED] | Scottish Government | [REDACTED]

From: [REDACTED]@snh.gov.uk
Sent: 15 August 2017 11:46
To: [REDACTED]
Subject: RE: Novel/contentious licence application

[REDACTED]

With reference to the application below, just to let you know that we are minded to grant the licence, for the purpose of science and research. This will be subject to clarification of a couple of points / assurances in particular re. collaboration between those carrying out the work. This may mean that the licence goes out later this week. For info I attach a copy of the assessment of the application.

From: [REDACTED]@gov.scot [mailto:[REDACTED]@gov.scot]
Sent: 12 June 2017 16:12
To: [REDACTED]
Subject: RE: Novel/contentious licence application

[REDACTED]

Noted.

Thanks

From: [REDACTED]@snh.gov.uk
Sent: 12 June 2017 15:10
To: [REDACTED]
Subject: Novel/contentious licence application

[REDACTED]

We have received a licence application from a group called Strathbraan Community Collaboration for Waders (SCCW). The application is for control of non-breeding ravens across a relatively large landscape unit covering a number of different farms/estates in Western Perth and Kinross. The purpose of the application is protecting lapwing, curlew and golden plover in that area. The application includes monitoring of both raven and wader populations throughout the course of the work, which is programmed to last for 5 years.

The application is being considered at the moment and I will let you know of the outcome but in the meantime if you have any queries please let me know.

Kind regards

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

For standard Licensing queries phone 01463 725364

Or email licensing@snh.gov.uk

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sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid
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mach bho SNH.

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d'fhuair sibh seo le gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam
bith air an t-siostam agaibh, leig fios chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh
neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach
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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED] [@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)
Subject: RE: License Application: Conserving Wading Birds
Date: 22 August 2017 12:11:00

Dear [REDACTED]

We've completed the assessment your licence application – my apologies for the delay. Subject to getting the assurances that the proposed baseline data collection has gone ahead as planned (see below), we'd be happy to grant a licence for 2018 and, providing all goes well and as planned we could renew this annually for a further two years. The licence would be granted for science and research purposes as a trial and adaptive approach to see if it is possible to achieve the three aims of the project as described.

Prior to granting a licence we would like to get confirmation that the baseline data for 2017, as described in the application, has been collected as planned. This is critical to the application both in terms of establishing a baseline against which the objectives of the work can be assessed, but also in terms of demonstrating the feasibility of this collaborative approach. The original intention was that GWCT would be able to collate this in October so we'd be happy to wait until that point if needed. Once we've got this the licence can be drawn up.

There were another couple of issues raised during the assessment of your application that I also wanted to raise. These are as follows;

We are aware of previous instances of rolling of agricultural fields during the breeding season and destruction of wader nests within the licence area. Whilst we are not suggesting that this has been carried out by any of the persons who would be operating under the terms of the licence this is something that, regardless of potential illegality, is counter to the aims of this work. As such, and given that this may well have taken place on land in the ownership of some of the collaborators to this project, we would expect that they would do everything in their powers to try to prevent such instances happening again, and should it happen again that this would be reported to the Police straight away and recorded in any licence return.

Similarly there were questions over the use of gas guns on some of the land covered by the application. Whilst we accept that this is outwith the remit of the project it would be useful to understand whether or not they would still be proposed to be used on the area in question and whether there might be any impact on what the project is trying to achieve.

So, in summary, we will be able to grant a licence subject to confirmation that the required baseline information has been gathered. If you could both confirm that this is the case then that would be great. Similarly if you want to discuss anything further then please do get in touch.

Kind regards

[REDACTED]

From: [REDACTED]
Sent: 05 June 2017 22:59
To: [REDACTED]
Subject: License Application: Conserving Wading Birds

Dear [REDACTED]

Please find attached a licence application to protect Wading Birds, on behalf of Strathbraan Community Collaboration for Waders (SCCW).

Yours Sincerely,

[REDACTED] Please
acknowledge receipt of this email

From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan raven licence
Date: 02 November 2017 17:01:00

[REDACTED]

As you suspected- no info from GWCT yet.

Regards

[REDACTED]

From: [REDACTED]
Sent: 02 November 2017 17:00
To: [REDACTED]
Subject: RE: Strathbraan raven licence

Hi [REDACTED]

No data as of yet but I still expect it and I'll let you know as soon as I do.

Cheers

[REDACTED]

From: [REDACTED]
Sent: 02 November 2017 16:52
To: [REDACTED]
Subject: Strathbraan raven licence

[REDACTED]

I was wondering what had happened with the Straathbraan ravens. Did GWCT ever provide the extra information?

Regards

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Working for waders
Date: 09 November 2017 13:11:00

Hi [REDACTED]

Many thanks to alerting me to this and for your response back to [REDACTED]. I will forward the details to [REDACTED] to they are all in the loop.

I agree that the sooner the Action Groups are up and running the better – it will help provide a ‘forum’ for these type of discussions, of which I’m sure there will be more.

I see you’ve put a doodle poll through for the next meeting - thanks for this – it will be good for us all to catch up.

Many Thanks

[REDACTED]

From: [REDACTED]@sruc.ac.uk]
Sent: 09 November 2017 12:26
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Working for waders

Hi [REDACTED] (with copy to [REDACTED] so she knows we have spoke)

Email trail below – and my response – re the issue raised by [REDACTED] that we just spoke about. They are in contact with [REDACTED] so it is more appropriate that [REDACTED] lets them know that the proposal has neither been agreed or declined but simply awaiting more clarifications from those involved.

Sooner Action Groups up and running the better

All the best

[REDACTED]

From: [REDACTED]
Sent: 09 November 2017 12:22
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Working for waders

Hi [REDACTED]

I am aware from speaking to [REDACTED] earlier this year that ravens were one of the species that SNH know there are conflicts around - and for all those species they are going through a process of identifying what type of conflicts are out there and what it may – or may not – mean for licensing (and just as importantly the processes that would have to be put in place before any licensing of anything could be considered).

I was, however, unaware of the proposal you refer to and it is certainly not something that has been discussed under the WfW banner.

Work for waders has been ongoing, is ongoing and new proposals are no doubt – as you suggest here – going forward to SNH. Given that WfW is not yet up and running then it is not surprising that any such proposals are having to be considered by them in the interim until WfW finds it feet more fully.

As you know, there is an aspiration that in the future WfW can become a sounding board for a wide range of wader-oriented proposals - but in the first instance we are seeking to establish Action groups to identify what needs to be done (and that is by no means just research) around those three main areas of collaborative action, targeting and awareness raising.

Such issues as you describe might possibly continue to arise in the interim and this just emphasises to me the importance of getting the WfW Action Groups up and running asap.

I will speak to [REDACTED] though about this particular issue and make her aware of the concerns that are out there at the moment.

Finally – one point of correction. We do not have a Research Action Group as such nor do I foresee we will ever have the need for one. The current Action Groups are forming around actions/issues and looking to identify the what, who and how that is needed to address each issue – research is likely to feature as a component in some but not necessarily all of the groups, the key being the focus is on what range of actions are needed to address the issue under consideration.

Excuse the brevity but writing in haste in between meetings at the farms

All the best

[REDACTED]

From: [REDACTED] [mailto:[REDACTED]@rspb.org.uk]
Sent: 09 November 2017 10:45
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Working for waders

[REDACTED]

I accept that I have perhaps wrongly assumed that this would come under WfW, as the partnership that we are developing is being expressed as the umbrella initiative for all wading bird conservation projects in Scotland. Given that we have had suitable meetings recently when WfW has been on the agenda, and future proposals openly discussed, you would have thought that this proposed research project should have been mentioned? We do have a WfW Research Action Group as well, and you might accept that it looks like certain partners are getting in on the act before this group meets and tries to develop some partnership proposals? I am afraid that if SNH decide to issue raven licences for this research project, it could be a big setback for the WfW project in terms of trust, as you will clearly understand. Might I suggest that you or [REDACTED] have a conversation with [REDACTED] at SNH to make this point? Might be best that any raven and waders proposal is brought to this WfW Research Action Group for partnership consideration when it meets? We will forward licensing details from [REDACTED] when [REDACTED] has obtained the details.

All the best

[REDACTED]
[REDACTED] RSPB Scotland

[REDACTED]
[REDACTED]
[REDACTED]

rspb.org.uk



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RSPB Scotland is part of the RSPB, the UK's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

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From: [REDACTED] [\[REDACTED\]@bto.org](mailto:[REDACTED]@bto.org)]

Sent: 09 November 2017 10:24

To: [REDACTED] [\[REDACTED\]@rspb.org.uk](mailto:[REDACTED]@rspb.org.uk)>

Cc: [REDACTED] [\[REDACTED\]@sruc.ac.uk](mailto:[REDACTED]@sruc.ac.uk)>; Morton, Keith

<[\[REDACTED\]@rspb.org.uk](mailto:[REDACTED]@rspb.org.uk)>; [REDACTED]

Subject: Re: Working for waders

[REDACTED]

I was not aware of this project and it has not been discussed at any of the (majority) of Working for Waders Facilitation Group meetings/telecons in which I have been involved. Can you give us more information on what has led you to consider it is under the WfW banner? As far as I am aware, there are no projects that fall under any WfW banner, just the Action Group structure that is being established currently of which you are aware....

Best wishes, [REDACTED]

On 9 November 2017 at 09:59, [REDACTED] [\[REDACTED\]@rspb.org.uk](mailto:[REDACTED]@rspb.org.uk)> wrote:

[REDACTED]

[REDACTED] and I are now picking up that there is a trial wading bird and predation research proposal GWCT involving licensed raven removal (90 birds!) in Strathbraan, Perthshire which apparently comes under the WfW banner. I understand that GWCT are leading on the research aspects. Please can you advise why there has been no mention of this proposal in the recent WfW discussions at Moorland Forum and elsewhere? Were you both aware of it? SNH licensing team are supplying us with details, which we can share. Lack of transparency about this proposal does not appear to accord with the WfW principals that have been discussed, and I should signal that is likely to immediately create huge mistrust amongst partners, just as we

are starting to get engagement. You will understand that this will reinforce views in some quarters that there is a hidden agenda to this project.

I look forward to hearing from you.

Best wishes

[Redacted]

[Redacted]

RSPB Scotland

[Redacted]

[Redacted]

[Redacted]

rspb.org.uk



RSPB logo



RSPB Scotland is part of the RSPB, the UK's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

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--

[Redacted]

BTO Scotland

[Redacted]

[Redacted]

[Redacted]

[Redacted]

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From: [REDACTED]
To: [REDACTED]
Subject: RE: Raven licence application
Date: 14 November 2017 16:08:59

[REDACTED]

Thank you for this information. It is useful to have been kept in touch over this matter. I don't have any queries at present.

[REDACTED]

Sent from [Mail](#) for Windows 10

From: [REDACTED]@snh.gov.uk>
Sent: Tuesday, November 14, 2017 12:13:26 PM
To: [REDACTED]
Subject: Raven licence application

Dear [REDACTED]

I said that I would send a summary of the raven licence application that we have received. This is provided below;

We received an application in June this year from Strathbraan Community Collaboration for Waders (SCCW). It is sought to kill ravens for the purpose of conserving wild birds, particularly curlew, lapwing and golden plover. Control is proposed between March and mid-July and the intention is to have licenced control for a period of five years to allow an assessment of the impacts. The licence application was submitted in June 2017 and was seeking permission for control in 2017 and 2018.

The proposal is for an adaptive management approach proposing removal of c.40% of the estimated non-breeding population of ravens from an area of around 50,000 Ha (500 sq km). For 2017 this would have been 92 ravens proposed to be removed between March 1st and July 16th, this period chosen on the basis that it covers the period during which those species are most vulnerable and would permit the control of ravens in the build-up to the wader breeding season.

The boundaries of the proposal area are chosen to represent a 'landscape-scale' and collaborative project covering a range of landholdings. They have been drawn-up around known wader populations and the exact boundaries then follow key landscape features (roads, administrative boundaries etc.).

The rationale of the proposal is that the area supports a number of important areas for breeding waders and specifically curlew, golden plover and lapwing (as BOCC red-list species), and that raven control could help safeguard and boost productivity of the 'core' populations. Specifically there are 3 stated objectives:

- Maintaining and/or improving existing populations of curlew, lapwing and golden plover in the defined area, notably by conserving breeding success of these

conservation listed species.

- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

In order to help measure whether these objectives are being met there is a programme of monitoring proposed (and already undertaken as far as I understand) based on a series of transect and point counts, carried out by participants, to count ravens as well as wader abundance and breeding success. [REDACTED] of GWCT has helped develop the design of the monitoring protocols and data collection. This monitoring commenced in April 2017. We are currently awaiting this information to complete the assessment of the licence application.

I hope this helps and should you have any queries please let me know.

Kind regards

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

From: [REDACTED]
To: [REDACTED]
Subject: Novel / Contentious licence application
Date: 16 November 2017 14:42:00
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Briefing - November 2017.docx

Hi [REDACTED]

We have a licence application in for a landscape-scale project to shoot ravens for conservation of wild birds (waders). The applicant is Strathbraan Community Collaboration for Waders and they're proposing to shoot c100 birds a year over a 500sq km area covering a range of landholdings including sporting estates. It's an adaptive management approach and the protocols have been designed by GWCT. The application falls into the category of novel and potentially contentious.

We've had the application since June but are waiting on some final information before completing the assessment. Subject to receiving this information we are minded to grant the licence. I imagine this would be around Christmas time. SG are aware of the licence and that we are minded to grant.

In the meantime RSPB and The Scottish Raptor Study Groups got wind of the application and, in order to pre-empt an inevitable FOI, I have provided them with a summary of the application (and a clear indication that we have not made a final decision on the application) this week.

Given the above there is a risk that the news of the application will spread further (and likely to the raptorpersecutionuk blog). I've therefore prepared a briefing (attached). I'd put it to [REDACTED] for comment prior to it coming to you but [REDACTED] so wanted to get it to you just in case anything does come up.

I must confess to not knowing if the attached is exactly what is required, and I'm happy to adapt it as needed but in the first instance I just wanted to make sure you are sighted.

If you want any further information or amendment of the attached just let me know.

Many thanks

[REDACTED]

[REDACTED]

[REDACTED]

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

-----Original Message-----

From: [REDACTED]
Sent: 14 November 2017 18:28
To: [REDACTED]
Subject: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Briefing - November 2017 (A2461462)

[REDACTED]

I haven't sent this yet to [REDACTED] and wanted to get your take on it first if possible. I'm fine with content but the main issue I have is about what the ask actually is? Essentially is this a briefing or a reactive line - I've tried to cover both bases but would appreciate your view before it goes to [REDACTED]



██████████ has sent you a copy of "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Briefing - November 2017" (A2461462) v1.0 from Objective.

Reactive line to take

Subject: Licence application to control ravens for conservation purposes, Strathbraan

Overview

We are considering a novel and potentially contentious licence application to control ravens over a large area of ground in Strathbraan in Perthshire in order to conserve wader populations.

Background

We received an application in June this year from Strathbraan Community Collaboration for Waders (SCCW). It is sought to kill ravens for the purpose of conserving wild birds, particularly curlew, lapwing and golden plover. Control is proposed for a period of five years to allow an assessment of the impacts.

The proposal is for an adaptive management approach proposing removal of c.40% of the estimated non-breeding population of ravens from an area of around 50,000 Ha (500 sq km). For 2017 this would have been 92 ravens. The boundaries of the proposal area have been chosen to represent a 'landscape-scale' and collaborative project covering a range of landholdings.

The rationale of the proposal is that the area supports a number of important areas for breeding waders and specifically curlew, golden plover and lapwing (all *red-list species* on the *Birds of Conservation Concern* list), and that raven control could help safeguard and boost productivity of the 'core' populations. Specifically there are 3 stated objectives:

- Maintaining and/or improving existing populations of curlew, lapwing and golden plover in the defined area.
- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

In order to help measure whether these objectives are being met there is a programme of monitoring proposed to be carried out by participants, to count ravens as well as wader abundance and breeding success. ██████████ of GWCT has helped develop the design of the monitoring protocols and data collection. This monitoring commenced in April 2017.

Lines to take

What is the status of the application? We are currently awaiting the results of the 2017 monitoring work that was proposed by the applicant in order to complete the assessment of the licence application.

Will SNH grant the licence? Subject to receipt of the requisite information we would be minded to grant a licence for the purpose of science and research (as opposed to for conservation purposes). Any licence granted would be subject to strict conditions and assurance of continued monitoring to ensure that the work is carried out as proposed.

Why is this application novel or contentious? We have received very few applications in the past for control of ravens to conserve wild birds. None of the applications were successful. The application is potentially contentious on a number of grounds including; the possible perception that control is being sought in order to improve grouse stocks rather than wader numbers, the ongoing conflict between upland grouse moor management and other conservation interests including raptor persecution as well as the difficulties in ascertaining definitive links between predation (and specifically raven predation) and declines in wader populations.

Why are SNH minded to grant the licence for science and research purposes and not for conservation purposes? We accept that getting definitive evidence for a causal link between predation from one species and declines in populations of a prey species is difficult. Given this we cannot be assured that the grant of a licence to permit these activities for conservation purposes would achieve that particular aim. However, we do feel that the proposal as presented is sufficiently well-designed to be able to *test* whether raven control may be beneficial to the conservation of these very vulnerable species. We accept that this may not provide unequivocal proof but should help to inform this debate and knowledge of the issue and that it can be done so without detriment to the wider raven populations. As such the application can be considered for science and research purposes.

What is the basis of this assessment? Subject to the assurance of continued commitment to gathering the requisite information, then the proposal meets the relevant licensing tests and should be licensed. This is a novel area of licensing and could be considered as contentious but in reality the impact on raven populations (as a green-listed species) should be minimal but it should help contribute to our understanding of relative impacts of raven control on red-listed wader populations that are in serious decline. As well as helping in this respect it will also serve as a useful exercise to explore the feasibility of more collaborative / *citizen science* / adaptive management-type approaches in future.

Are Scottish Government counterparts aware of this application? When we receive potentially novel or contentious licence applications we are obliged to inform Scottish Government. As such when the application was received we informed [REDACTED] and informed him of our intention to issue a licence subject to receipt of the required information.

Links with other work – This has links to *Understanding Predation* (UP) and the developing *Working for Waders* work that arose from UP. The application is made with strong reference to UP but has not been developed or submitted under that banner or that of *Working for Waders*.

From: [REDACTED]
To: [REDACTED]
Subject: RE: Raven licence application
Date: 20 November 2017 07:50:00

Hi [REDACTED]

The licence is made for the purpose of conserving wild birds but could equally be considered for science or research.

The applicant has been made by one individual on behalf of the SCCW but details of the membership is not provided.

Hope this helps

[REDACTED]

From: [REDACTED]@rspb.org.uk]
Sent: 17 November 2017 14:16
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Raven licence application

[REDACTED] would you mind clarifying that this a substantive 'conservation' licence application rather than one for research?

Also, are you able to identify the partners who constitute the SCCW?

Many thanks

[REDACTED]

From: [REDACTED]
Sent: 14 November 2017 14:50
To: [REDACTED]@snh.gov.uk>; [REDACTED]
Subject: RE: Raven licence application

Thanks, [REDACTED]

From: [REDACTED]@snh.gov.uk]
Sent: 14 November 2017 12:13
To: [REDACTED]@rspb.org.uk>; [REDACTED]
Subject: Raven licence application

Dear [REDACTED]

I said that I would send a summary of the raven licence application that we have received. This is provided below;

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I hope this helps and should you have any queries please let me know.

Kind regards

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

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Reactive line to take

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Lines to take

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Why is this application novel or contentious? We have received very few applications in the past for control of ravens to conserve wild birds. None of the applications were successful. The application is potentially contentious on a number of grounds including; the possible perception that control is being sought in order to improve grouse stocks rather than wader numbers, the ongoing conflict between upland grouse moor management and other conservation interests including raptor persecution as well as the difficulties in ascertaining definitive links between predation (and specifically raven predation) and declines in wader populations.

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Are Scottish Government counterparts aware of this application? When we receive potentially novel or contentious licence applications we are obliged to inform Scottish Government. As such when the application was received we informed [REDACTED] and informed him of our intention to issue a licence subject to receipt of the required information.

Links with other work – This has links to *Understanding Predation* (UP) and the developing *Working for Waders* work that arose from UP. The application is made with strong reference to UP but has not been developed or submitted under that banner or that of *Working for Waders*.

SCOTTISH RAPTOR MONITORING GROUP

MINUTES OF MEETING ON 27 NOVEMBER 2017, 11:00–16:00

SNH BATTLEBY

<u>Present</u>	<u>Apologies</u>
[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]
■	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]
■	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

5. AOB

[REDACTED]

[REDACTED]

Application(s) for licensed control of ravens for purposes of conservation of wild birds

5.2 [REDACTED] explained that at a recent Moorland Forum meeting he had become aware of 3 licenses going to SNH, one of which included removing of 40% of the non-breeding population of Raven (i.e. 92 birds) in around 50,000 km² in Strathbraan. [REDACTED] is wary that this may be the beginning of an overall predator reduction campaign and believes that this is an important issue for SRMS to keep an eye on. [REDACTED] also suggested that the application was perhaps a bit premature in light of the fact that the Raven modelling work using SRMS data that BTO has been undertaking on behalf of SNH is not yet published.

[REDACTED]

[REDACTED]

[REDACTED]

From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan raven licence application
Date: 06 December 2017 18:15:42
Attachments: RAVEN LICENCE APPLICATION Strathbraan.docx

[REDACTED]

Here is the note from [REDACTED] to which I referred this afternoon. She is very happy for me to send it on to you. We spoke about a plan of the area that is subject to the licence application and you said that you will kindly let me have a copy.

[REDACTED]

Sent from [Mail](#) for Windows 10

From: [REDACTED]
Sent: Friday, December 1, 2017 9:26:30 AM
To: [REDACTED]
Subject: Strathbraan raven licence application

[REDACTED]

Please find attached a number of points with regards to the Raven Licence application in the Strathbraan area.

[REDACTED]

RAVEN LICENCE APPLICATION

Without knowing the exact boundaries of the area where the culling proposal is going to take place it is difficult to be certain that the following comments are valid.

- 500 sq kilometres is a huge area of upland southern Perthshire in which to eliminate a vast number of ravens over an extended time.
- It is understood that there is strong evidence to suggest that there has been localised damage to a lapwing population by a small number of non-breeding ravens within Glen Quaich. These are the birds which should be targeted.
- The productivity of known breeding territories in this general area is very poor. Why are there not more successful nests in what could be recognised as prime raven habitat?
- Breeding pairs are known to defend their territories vigorously against intruding non-breeders particularly early in the season. Having few permanent breeding pairs will not help the situation of having high numbers of non-breeders.
- If breeding pairs are not already illegally killed, what will happen to nesting pairs which will have young in the nest any time from late March and fledged family parties any time from late April onwards?
- Inland roosts containing immature and non-breeding birds tend to disperse in March. Killing birds entering or at roosts is probably one of the easier ways to kill ravens. However it is unlikely that any major roost will still be present after March. It is important to remember that roost sites may also contain red kite, buzzard and golden eagle.
- Ravens are highly mobile. Ravens doing no damage at all to wader populations in the area are going to be killed.
- What about all the other bird and mammal predators that may be involved in wader predation and dare pheasants also be mentioned as a likely culprit?
- What are the proposed methods for killing the birds knowing how difficult they are to kill?
- How are they going to successfully age birds? Apart from distinct family parties from April to July, it will be extremely difficult to age birds.
- What knowledge of raven ecology do this group have apart from the desire to reduce their numbers?

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan, Perthshire raven licence application
Date: 06 February 2018 09:03:00

Hi [REDACTED]

We are still waiting on some additional information from the applicant on this case.

All the best

[REDACTED]

From: [REDACTED]@rspb.org.uk]
Sent: 06 February 2018 09:00
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan, Perthshire raven licence application

[REDACTED]

Please could you provide me with an update as to where the proposed licensing application to cull over 90 ravens in Strathbraan, Amulree, supposedly as part of a local wader conservation project, has reached?

I look forward to hearing from you shortly.

All the best

[REDACTED]

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From: [REDACTED]
To: [REDACTED]
Subject: Re: Raven application form [REDACTED] - refusal
Date: 15 February 2018 15:05:04

[REDACTED]

Seems fair enough to me. Few amendments below...

[REDACTED]

Sent from my BlackBerry 10 smartphone.

From: [REDACTED]
Sent: Thursday, 15 February 2018 14:57
To: [REDACTED]
Cc: [REDACTED]
Subject: Raven application form [REDACTED] - refusal

[REDACTED]

As I mentioned yesterday, we've had a raven application in for conserving wild birds. Having had a quick look at it, the estate is actually within the boundary of the Strathbraan proposal(!?). Following this up with [REDACTED] it appears [REDACTED]. My proposed response is therefore as follows (hopefully with the outcome that they become engaged in the trial).

Can you let me know if you're happy with this?

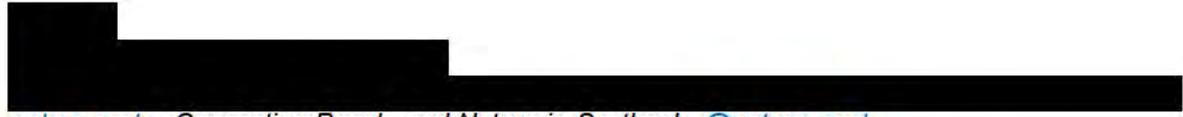
[REDACTED]

Dear [REDACTED]

Many thanks for the application to control ravens on [REDACTED] for the purpose of conserving wild birds. We recognise the potential impacts of ravens on ground nesting birds and particularly on some red-listed waders. As you may know, we are currently processing a licence application by Strathbraan Community Collaboration for Waders (SCCW) to control ravens across Strathbraan and to monitor the impacts of that control on the wader population. This is based upon participants undertaking a series of standardised counts and GWCT collating the data to help inform us how raven control will help the resident populations of these species. This is a really useful opportunity to be able to shed light on this issue and to do so in a robust way that will hopefully inform any future approaches.

At the moment we do not feel that individual applications of this kind offer the opportunity to build our knowledge in this respect, so unfortunately we are not in a position to issue a licence on this occasion. However, could I suggest that you make contact with SCCW (or possibly [REDACTED] at GWCT, who is overseeing some of this work) to look at the possibility of being part of their licence as it strikes me that both your location and situation may well lend itself to inclusion in their work. This has the potential of improving their study and at the same time enabling action on your ground.

Kind regards etc.



nature.scot – Connecting People and Nature in Scotland - [@nature_scot](https://twitter.com/nature_scot)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Application
Date: 26 February 2018 13:54:00
Attachments: image001.jpg

Hi [REDACTED]

Thanks for this. The raven info looks good, but I'm not quite sure about the wader info - can you clarify a few points for me as follows...

The application, and our discussion last month, refers to 17 transects (or pairs of transects) that would be counted for waders. However, the summary gives only 6 sites (and 11 counts) and on the map there look to be 7 (of the 17) transects shown. I'm therefore confused as to the true coverage against what was proposed.

Does this mean that only 6 of the 17 transects were covered? Also, on the table referring to these counts it looks as though 3 of these only had one count, where the methodology stated there would be two minimum.

I'm also not sure what was carried out in terms of Vantage Point work – the intention was that there would be 6 sites with VP counts, but I'm not clear what was carried out. There is a table with information on numbers of chicks seen but I don't know if this was from the VP work or transects later in the season.

Given the above could you clarify these points and perhaps amend the document to make this a bit clearer. As discussed last month the monitoring is key and my understanding was that the coverage over last year was very good (accepting that it was not 100%), but my reading of the summary data is suggesting something very different. Possibly that's just me reading it wrongly or something has been missed off, but if you could clarify that would be good. Also it would be good to get some cross reference between the transect names/sites etc throughout the document so it can easily be seen what data has been gathered where.

I hope these are relatively simple to clarify and in the meantime I will continue to put together a draft to show what the licence would look like.

[REDACTED]

From: [REDACTED]@gwct.org.uk]
Sent: 23 February 2018 17:38
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Strathbraan Application

Good Afternoon [REDACTED]

As promised please see attached the data summary and area map for the Strathbraan Adaptive Wader Conservation Licence application. Please note this is in draft form and we

welcome any changes you deem necessary. This is the kind of reporting structure we are thinking of using for future applications and one that can be easily adopted by other community groups across Scotland.

If you feel another spring raven count is needed before control takes place then this can be discussed with the Strathbraan group. I would not like to answer your question without getting [REDACTED] (et al) thoughts as they will be carrying out this work.

Looking forward to your draft on Monday and hopefully progressing this application to the next stage.

Best wishes

[REDACTED]

[REDACTED]
Game & Wildlife Conservation Trust

[REDACTED]

[REDACTED]

1502963387194_GWCT



From: [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)>

Sent: 23 February 2018 14:56:24

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Strathbraan Application

Hi [REDACTED]

Good news re. [REDACTED]. I'll hopefully get a draft licence out on Monday. For the final licence we will still need names of controllers from [REDACTED]

Looking forward to getting the data, I think you said you were going to get the spatial data together for the breeding ravens so anticipating that will also be part of the package.

Finally I was wondering about timings of the raven VP work – this was carried out at the end of

March last year and it informed the proposed bag of 92 birds. I know that folk will want to get on with the control asap but wondered about the merits of conducting the counts before control started? I just wonder that you might not get a representative figure once control has started?

█

From: █@gwct.org.uk
Sent: 22 February 2018 18:39
To: █
Subject: Strathbraan Application

Good Evening █

Hope your having a productive week. As of today █ are fully on board with the large scale application.

Data processing is going well, hoping to get it to you by tomorrow.

Please can you advise us on your drafting progress?

Best wishes

█

█

█

Game & Wildlife Conservation Trust

█

█

█

█

█

?

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.



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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan Application
Date: 28 February 2018 20:28:28
Attachments: image001.jpg
Strathbraan Wader and Raven Survey Data Summary 2017.pdf

Good Evening [REDACTED]

Thank you for your reply the other day and for highlighting some key issues particularly related to the wader data. Please see attached an updated version of the data analysis document that will hopefully clarify some of the questions you have raised.

In regards to the total number of paired transects we only have 7 out of the originally proposed 17. Building on the success of last year we are hoping to increase the current level but this will take time and a lot of effort as I'm sure you can imagine. The 7 paired transects counted at least once, can however act as a baseline because a) single count data is usable as presence absence data, b) the four sites counted twice are well distributed across the licence area and c) the breeding wader data based on VP and display analysis during transect counts is a large well distributed dataset.

We, GWCT as well as the Strathbraan community group, openly recognise that there is much less data than we originally indicated in the proposal. However there have been some changes from SNH's end, notably the methodology for raven monitoring. The feedback I have had from a lot of the other groups around Scotland is that they are more than willing to carry out the necessary wader transect and breeding VP watches as well as standardised raven counts.

For all of us this is the first time a process like this has developed so I hope the challenges we have had along the way do not hold back future work and we hope to improve as we move forward year on year.

Thanks for your time and consideration and looking forward to hearing back from you as well as hopefully seeing a draft application.

Best wishes

[REDACTED]

From: [REDACTED]@snh.gov.uk]

Sent: 28 February 2018 14:00

To: [REDACTED]

Cc: [REDACTED]@gwct.org.uk>; [REDACTED]

[REDACTED]@gwct.org.uk>

Subject: RE: Strathbraan Application

Hi [REDACTED]

I attach a draft licence for Strathbraan as we had agreed – basically just to get an idea of what a

final licence might look like. More than happy to discuss. It will need to have the names of the controllers added, and I think you were going to provide them.

In the meantime I'll await any comments and the response to my previous email to [REDACTED]

All the best

[REDACTED]

From: [REDACTED] [\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)
Sent: 23 February 2018 17:38
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Strathbraan Application

Good Afternoon [REDACTED]

As promised please see attached the data summary and area map for the Strathbraan Adaptive Wader Conservation Licence application. Please note this is in draft form and we welcome any changes you deem necessary. This is the kind of reporting structure we are thinking of using for future applications and one that can be easily adopted by other community groups across Scotland.

If you feel another spring raven count is needed before control takes place then this can be discussed with the Strathbraan group. I would not like to answer your question without getting [REDACTED] (et al) thoughts as they will be carrying out this work.

Looking forward to your draft on Monday and hopefully progressing this application to the next stage.

Best wishes

[REDACTED]

[REDACTED]
Game & Wildlife Conservation Trust
[REDACTED]

[REDACTED]
[REDACTED]
1502963387194_GWCT



From: [REDACTED]@snh.gov.uk>

Sent: 23 February 2018 14:56:24

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Strathbraan Application

Hi [REDACTED]

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Looking forward to getting the data, I think you said you were going to get the spatial data together for the breeding ravens so anticipating that will also be part of the package.

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[REDACTED]

From: [REDACTED]@gwct.org.uk]

Sent: 22 February 2018 18:39

To: [REDACTED]

Subject: Strathbraan Application

Good Evening [REDACTED]

Hope your having a productive week. As of today [REDACTED] are fully on board with the large scale application.

Data processing is going well, hoping to get it to you by tomorrow.

Please can you advise us on your drafting progress?

Best wishes

[REDACTED]

[REDACTED]

[REDACTED]

Game & Wildlife Conservation Trust

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.



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Strathbraan wader and Raven survey data

Overview

There were 12 sites in the Strathbraan region contributing to the wader and Raven surveys.

Site code	Number of Ravens	Number Raven nests	Number of waders	Wader fledging success
1	✓		✓	✓
2	✓	✓		✓
3	✓	✓		✓
4	✓		✓	✓
5	✓	✓	✓	
6	✓	✓		✓
7	✓	✓	✓	✓
8	✓		✓	✓
9	✓	✓		✓
10	✓		✓	✓
11	✓	✓		
12		✓		✓

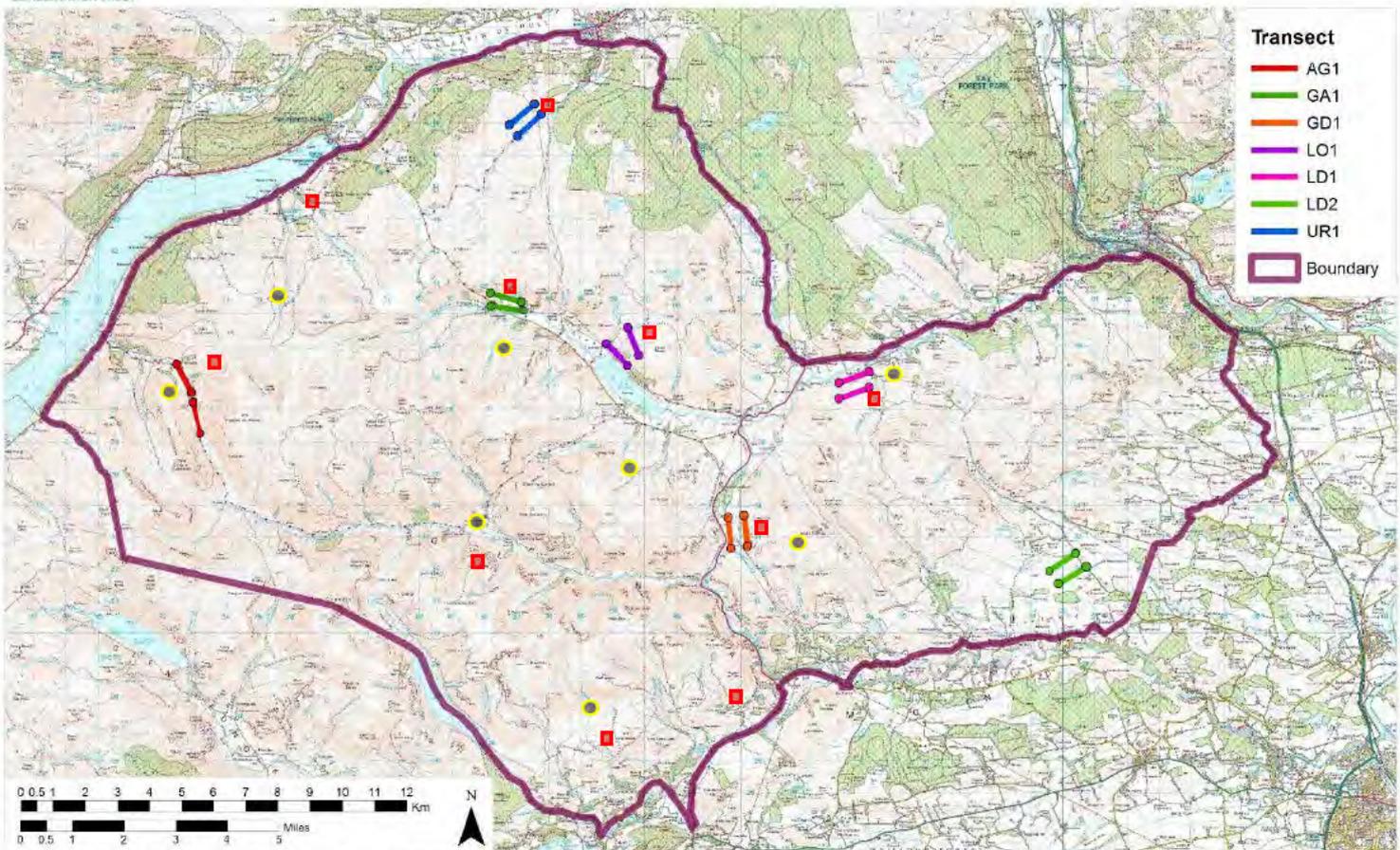
Total Number of Paired Transects	Number of paired transects visited once	Number of paired transects visited twice
7	3	4



Strathbraan Wader Transects

■ Wader Breeding VP

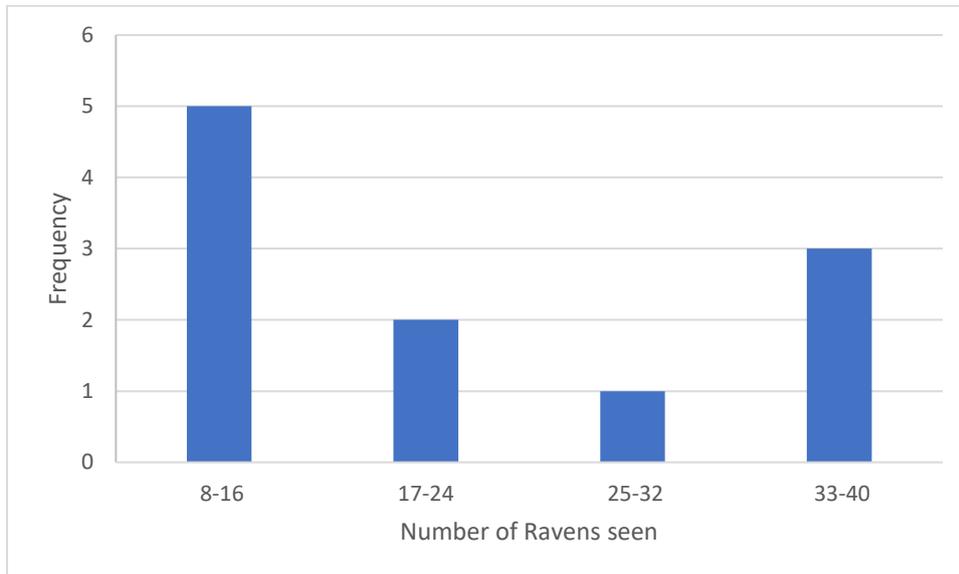
● Raven VP



- Transect**
- AG1
 - GA1
 - GD1
 - LO1
 - LD1
 - LD2
 - UR1
 - Boundary

Ravens

Eleven sites in Strathbraan counted Ravens on their land via a single 5-hour Vantage Point (VP) survey. The average number of Ravens seen across the 11 sites was 21:



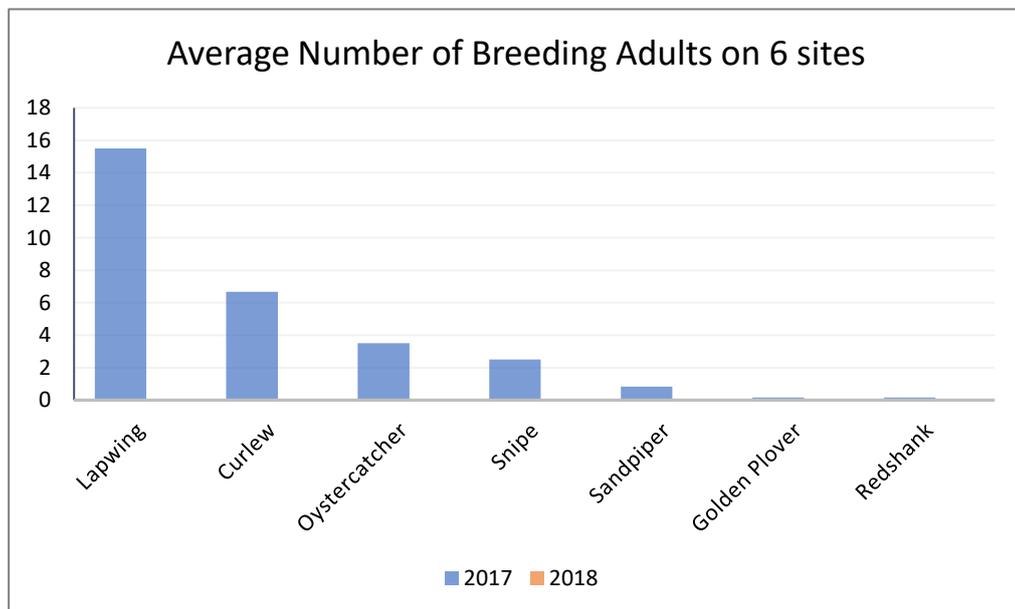
Eight sites were able to contribute data on the number of nests on their ground. There were on average two nests per site (range of 1-6 nests).

Site code	Number of Ravens Nests Per Site
1	0
2	1
3	2
4	0
5	2
6	6
7	3
8	0
9	1
10	0
11	1
12	2

Waders

Six sites counted waders via transect surveys. A total of seven paired transect counts were conducted.

Site code	Number of counts	Maximum adult count						
		Lapwing	Curlew	Oystercatcher	Snipe	Sandpiper	Golden Plover	Redshank
1	2	33	12	4	8	3	0	1
2								
3								
4	1	2	10	0	3	0		
5	2	0	4	4	1	1		
6								
7	4	6	8	0	2	0	1	
8	1	31	3	6	0	0		
9								
10	1	21	3	7	1	1		
11								
12								



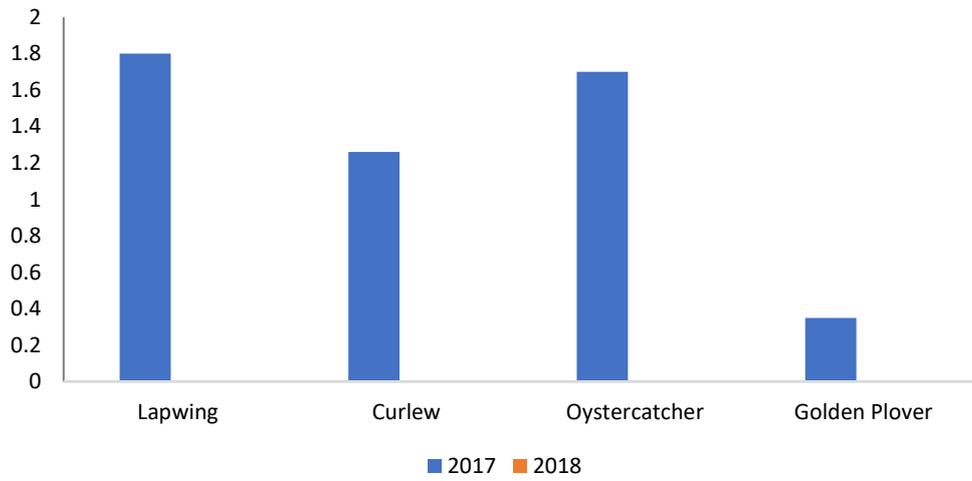
Ten of the sites recorded wader chicks seen later in the season.

Site code	Num counts	Maximum adult count						
		Lapwing	Curlew	Oystercatcher	Snipe	Sandpiper	Golden Plover	Redshank
1	2	33	12	4	8	3	0	1
2								
3								
4	1	2	10	0	3	0		
5	2	0	4	4	1	1		
6								
7	4	6	8	0	2	0	1	
8	1	31	3	6	0	0		
9								
10	1	21	3	7	1	1		
11								
12								

This was derived from VP watches located adjacent to the transect counts of five sites and wader hotspots for the remaining other five sites (see map). Behaviour seen on paired transect counts in June were also used to help with productivity monitoring.

Site code	Lapwing	Curlew	Oystercatcher	Golden Plover
1	2	1.5	0	0
2	2	1.5	1	0
3	1	1	2	0.5
4	2	1	2	0
5				
6	2	1	2	1
7	1	0.1	2	0
8	2	1.5	2	0
9	2	1	1	0
10	3	2	3	2
11				
12	1	2	2	0

Average Chicks Fledged on 10 sites



From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan
Date: 02 March 2018 11:24:00

[REDACTED] and all

Thanks for this. This is a disappointing and frustrating outcome in terms of data gathered, particularly what was meant to be a collaborative approach. I'm sure that this frustration will also be held by those individuals who have gone to considerable lengths to undertake the ground-work that was proposed.

The original proposal was an opportunity to trial a collaborative and adaptive approach to objectively examine impacts of raven control and help move discussion forward in this respect. Buy-in from the group was key to the success of this and in helping to present and develop a robust approach across this area but unfortunately, on the basis of the information received, this vital buy-in seems low or patchy at best.

Given this I do not feel that we can licence the proposal as it has been submitted. In particular the baseline information gathered, in relation to waders is weak when considered across the application area as a whole (7 of proposed 17 transect pairs being counted and even of those 7 some only being counted once). Gathering this baseline information was critical in terms of being able to start to identify the impacts of any licence control and without it the proposal is significantly less robust.

I would be happy to consider a revised proposal that can provide the necessary robustness either once the requisite information has been gathered or to reflect any 'clustering' as you describe.

Happy to discuss

[REDACTED]

[REDACTED]

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Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

From: [REDACTED]@gwct.org.uk]
Sent: 02 March 2018 10:22
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan

[REDACTED]

Good to speak just now.

this communication in error, please telephone us immediately to arrange for its return.

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From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Strathbraan
Date: 05 March 2018 11:58:39
Attachments: Strathbraan Map.pdf
SCCW-WCL Licence 180304.docx
Strathbraan draft lic.pdf
Importance: High

[REDACTED]

SCCW have done very well to pull this update together over the w/e, many thanks. The map attached and the yellow annotated 'SCCW-WCL Licence 180304.docx' application attached are fine to send back to [REDACTED] as suggestions from the SCCW for a refined area and tweaks to application and licence.

I think it would be helpful to [REDACTED] to annotate the 'Strathbraan draft lic.pdf' with the changes to dates and calls etc (that you show in yellow in 'SCCW-WCL Licence 180304.docx' as well please.

In order not to slow the process I have ccd [REDACTED] in here, noting the annotated 'Strathbraan draft lic.pdf' can be sent on once you are clear of your training events.

From: [REDACTED] [\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)
Sent: 02 March 2018 11:24
To: [REDACTED] [\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>
Cc: [REDACTED]
[REDACTED] [\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>, [REDACTED]
Subject: RE: Strathbraan

[REDACTED] and all

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Happy to discuss

■

■
■

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From: ■ [@gwct.org.uk](#)
Sent: 02 March 2018 10:22
To: ■
Cc: ■
Subject: RE: Strathbraan

■

Good to speak just now.

We are frustrated and concerned about the low level of engagement and the resulting poor match of data gathered to the application statement. I also think there is a cluster of counts where the effort in counting and addressing other land management issues has been adequate.

Much to consider.

■

From: ■ [@snh.gov.uk](#)
Sent: 01 March 2018 16:42
To: ■ [@gwct.org.uk](#)>
Subject: Strathbraan

Hi ■

Any chance of a quick chat about Strathbraan? You can get me on either number below

[nature.scot](#) – Connecting People and Nature in Scotland - [@nature_scot](#)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

--

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.

<image001.jpg>

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Registered in England and Wales. Registered Office: Burgate Manor, Fordingbridge, Hampshire SP6 1EF

Application to Scottish Natural Heritage: Licence to protect wading birds from raven predation, 2017-2018.

Strathbraan Community Collaboration for Waders (SCCW)

1. **Application**

1.1. **Licence sought**

A licence to take and kill ravens (*Corvus corax*) for the purposes of conserving wild birds, notably curlew (*Numenius arquata*), lapwing (*Vanellus vanellus*) and golden plover (*Pluvialis apricaria*) in a defined area of western Perth & Kinross (see Appendix 1) during the periods 1/3/18-16/7/18 and 1/3/19-16/7/19.

1.2. **Competence**

Scottish Natural Heritage (SNH) is an 'appropriate authority' and has powers to grant such a licence under Section 16 subsection (1)(c) of the Wildlife and Countryside Act 1981 (as amended), subject to the provisions of Section 16, subsections (1A) and (5).

1.3. **Proposed Licence Holder**

1.3.1. Strathbraan Community Collaboration for Waders

1.3.2. Point of Contact and Licence Holder: [REDACTED]

2. **Reason for Application**

2.1. **Context**

In 2016, *Understanding Predation* (UP), commissioned by Scottish Government, funded by SNH and managed by Scotland's Moorland Forum, concluded that six wild birds had shown widespread declines across Scotland since the 1960s (Appendix 4). Included were the three wading birds this particular licence application seeks to conserve, Curlew (CU), Lapwing (L) and Golden Plover (GP). UP also showed the value of using local knowledge, that of land managers and community residents, to scrutinise reasons for decline and possible solutions.

2.2. **Need**

The proposed licence area, in western Perth & Kinross, has a wide diversity and area of habitats which appear optimal for breeding waders. It seems likely, from local knowledge and third party wader survey work (see testimony), that many of the valley flats, moor and montane tops in this landscape are regionally important for breeding waders (noting the area's inclusion on the SRDP AECS wading bird options targeting map and the importance of the area in the BTO Bird Atlas 2017-11; see Appendix 4). Over the last 15 years, in line with much of Scotland, ravens have become increasingly commonplace in the area (see testimony). The welcome expansion of the raven population has increased predation pressure on the wading birds. Predation is of eggs, chicks and adults by ravens, during the raven and wader breeding season. The fact that this predation takes place is established by submissions to UP and by the local knowledge and records of the area's local community (Appendix 5). A licence to take ravens is needed to address two issues: (1) that any risk this predation pressure poses to these core populations is currently unmanageable and (2) that impacts on the populations of waders are hard to quantify.

2.3. **Collaboration**

Understanding Predation agreed urgent action was required to conserve wading birds and that collaborative approaches should be considered. This collaborative licence application seeks to take that objective forward. The 'Strathbraan Community Collaboration for Waders' (SCCW) represents some of the local land management (farmers, gamekeepers) and private interests in the area who value wading birds for their biodiversity, social and economic value to the area and Scotland more widely. The application is supported by Scottish Gamekeepers Association and technical advice and support, notably data gathering and interpretation, is being provided by Game & Wildlife Conservation Trust.

2.4. **Adaptation**

Understanding Predation also found that to better conserve ground nesting birds, adaptive approaches to conservation management should be considered. Adaptive approaches, where management techniques are amended, the effect of the changes on the species of interest monitored and assessed, and used to inform new management approaches, are relevant in management contexts. In this context, we seek to adapt the practices and techniques used for the legal predator control of some corvids, notably the common/hooded crow (*Corvus corone*) under General Licence (1) to take non-breeding ravens, to

secure the current breeding performance of this core population, and to establish whether this can contribute to the enhancement of core populations of wading bird species.

2.5. Justification

Such a licensable approach appears justified as:

- there are no immediately apparent other satisfactory land management actions to further conserve wading birds in this area (habitats and land management, including farming and predator control, in the identified areas are suitable for waders) – Appendix 6.
- such a licence is necessary to help establish whether lethal raven control will further conserve wading birds.
- the licence is being sought for a defined period, area, season, range of techniques, numbers and age class, such that it will also protect raven conservation status.

3. Licence Objectives

3.1. The three objectives of the licence (below) reflect the common aim of *Understanding Predation*: to achieve sustainability in both predator and prey populations, notably by:

- Maintaining and/or improving existing populations of CU, L and GP in the defined area, notably by conserving breeding success of these conservation listed species.
- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

4. Data Gathering

4.1. The three licence objectives require data to be gathered from the licence area on wading bird populations (to monitor change and success), raven populations (to monitor management effect and conservation status) and management (to describe activity undertaken so this can be modified if required).

5. Raven monitoring

5.1. The licence holder will co-ordinate annual, landscape scale raven population censuses in the licence area. This will provide a measure of recruitment of ravens from non-breeding to breeding status.

5.2. Non-breeding flocks:

- 5.2.1. The focus of the licence application is on mitigating and understanding the impact of non-breeding flocks of ravens. The number of non-breeding raven will be recorded each year through co-ordinated vantage point counts, and reported for the licence area as a whole.
- 5.2.2. These counts will be complimented by recording other raven sightings made during daily work. These will be recorded onto standard recording forms.
- 5.2.3. Predation of wading birds eggs, chicks and adults by ravens, observed by land managers, from fixed point vantage monitoring will be recorded.
- 5.2.4. Data collection was started on 31st March 2017. The co-ordinated count by 11 observers (of a maximum possible 12 in the area) estimates 231 ravens.
- 5.2.5. An estimate of the number of non-breeding raven will be recorded each year and reported for the licence area as a whole. GWCT will maintain a raven sighting database.
- 5.2.6. Two main counts per year will be undertaken to monitor raven numbers, one in spring and the other in late autumn.

5.3. Breeding Pairs:

5.3.1. An estimate of the number of breeding pairs of raven is being recorded each year and reported for the licence area as a whole. GWCT will maintain a raven sighting database.

6. Wading bird monitoring.

6.1. The licence holder will co-ordinate a wading bird (wader) population census in the licence area.

The census will record breeding pairs, and estimate fledging success.

6.2. These data will form a baseline measure of presence and success, and will be used alongside data on regional and national trends in wader numbers from the BTO Atlas, wader surveys undertaken during work on the Beaulieu-Denny powerline, and wader count data derived from GWCT grouse

count sites. Feedback from the licence holder and trends in wader numbers and fledging will be used to guide the setting of the raven cull limit with SNH.

6.3. Further information on the species of conservation interest, status and impacts are in Appendix 4.

6.4. Breeding Waders (local knowledge)

- 6.4.1. The area was stratified by identifying core and improvable wading bird populations were identified using the local knowledge of the farming and keeping community for the period 2012-2016 (Appendix 1 and 2). The areas have suitable habitat and land management (farming and keeping activity) for waders to breed.
- 6.4.2. The subjective performance of wading birds in these areas will be assessed at the end of each breeding season and recorded for assessment.
- 6.4.3. One area in particular, close to Ardtalnaig village, is a key location to monitor breeding wader success. The wader counts in 2017 were relatively low here but there are now two full time keepers on the ground near this location and waders are slowly starting to recolonise the glen.

6.5. Breeding Waders (transect counts)

- 6.5.1. The local knowledge regarding wader abundance and breeding in the areas identified above will be formalised by locating a series of repeatable, consistent counts alongside these areas – a purposive sampling strategy that builds on local interest in waders and capacity to conduct counts.
- 6.5.2. The counts will quantify wader abundance and breeding, and will provide the basis on which to assess conservation status and the effects of management.
- 6.5.3. Counts are based on walked transects, a modified BBS type approach. Site locations are described in summary in Appendix 1, in detail in Appendix 2 and the monitoring protocol is described in Appendix 3.
- 6.5.4. 6 breeding wader counts per licence area will be distributed through the raven licence area to provide a representative cross section of available habitat types.
- 6.5.5. At 6 locations in the licence area vantage point counts will be undertaken to establish detailed fledging success data for small areas of 250mx250m.
- 6.5.6. The data will be reported to GWCT who will maintain a breeding wader database.
- 6.5.7. Data collection began in mid-April 2017.

7. Licence details - period

7.1. Proposed Start Date: 1st March 2018

7.1.1. Proposed End Date: March 1st 2018 to December 31st 2019.

7.1.2. Reasoning: Within a year this protects the majority of first (day 100) and second nests of CU, L. and GP, at the critical time when they are most vulnerable to predation. Between years, a reasonable period over which the management impact can be assessed on both RN and CU, L. and GP. The March 1st start enables those operating under the licence to pre-empt a build-up of RN in any core area, to make these highly intelligent birds wariar and easier to move on, before CU, L. and GP start to settle for nesting.

7.2. It is intended this licence will be re-issued for 5 years to enable an assessment of management effects.

8. Licence details – licenced area

8.1. Details of the area in which predation is occurring

The area comprises open heather moor, hill edge, farmland, watercourses and forestry in the Eastern Lowlands National Heritage Zone (16). Much of the area is under land management that is highly suitable for conserving wading birds (Appendix 6).

8.2. The boundary of the area within which the licence will be operated is indicated in the attached plans (Appendix 1).

8.3. Verbal description: The boundary's western point is the village of Ardtalnaig, Perthshire. From there it runs below the A827 marking the north and east parts of the licence area continuing along until to the road junction where the A826 joins the A822. Aldville Bridge is the far eastern point of the mapped area. From here the boundary goes directly south encompassing Logiealmond Estate and then Glenalmond Estate following the BA063 rejoining the A822 at Buchanty Junction. The River Almond is the southern boundary area and runs north west eventually meeting the north side of Auchnafree which then connects on to Ardtalnaig Village again.

8.4. The boundary is indicative, and it is proposed that no licensed activity will take place within 50m of the boundary. The boundary area does not assume the agreement or otherwise of landowners and tenants within it to the terms of the licence.

9. Licence details – raven control

9.1. Number

9.2. The licence will allow 92 ravens (40% of non-breeding ravens observed during the co-ordinated count on 31st March 2017) to be taken in 2017.

9.2.1. We understand that using current population and range data, and research currently being undertaken, removal of 40-50% of sub-adult ravens is likely to have no lasting damage on the conservation status of RN. We understand that the output from a national raven Population Viability Assessment (PVA), in combination with data on regional and national trends in raven numbers from the BTO Atlas, raven observations from grouse count areas, feedback from the licence holder and trends in wader numbers and fledging, will be used to guide the setting of a cull limit.

9.3. The number to be taken in 2019 will be subject to review in October 2018 between the licence holder, SNH and GWCT.

9.4. Breeding status

9.5. Efforts will be made to target only flocks of ravens, these being indicative of non-breeding status. Explicitly breeding pairs will not be taken. This management option will be reviewed if data indicates the conservation of wading birds can only be achieved by taking pairs, and that this can be done without impacting raven conservation status.

9.6. Methods of taking

9.6.1. Shooting – the safe use of suitable firearms during daylight hours will be permitted. The licence will require all those using firearms to have current certificates and to be operating over ground with the approval of the owner. The use of electronic calls will be permitted.

9.6.2. Multi-catch traps – the use of multi-catch traps to take ravens will be permitted. The operation of raven decoys and the taking of ravens in multi-catch traps will be regulated as per the guidance contained in General Licence (1) for the common/hooded crow (*Corvus corone*).

9.6.3. Pre feeding areas is a proven way of controlling ravens from anecdotal evidence before the species was given full protection in the 1980's.

9.6.4. Authorisation is not being sought at this stage to take ravens in Larsen or Larsen mate traps, or in spring-over traps, or to shoot birds at roost.

9.7. Those operating under the licence (authorised by the licence holder) will have completed GWCT training in corvid control which details the importance of humane dispatch.

9.8. The licence will specify that the remains of all ravens taken and/or killed will be disposed of discreetly and carefully.

9.9. Reporting

9.10. There will be joint briefings by a group comprising SNH, GWCT and SGA prior to the start of the licence on monitoring results, targets for RN and wader numbers, achieved cull targets.

9.11. Achieved raven culls will be communicated by those operating under the licence (authorised by the licence holder), on a weekly basis, to the licence's Point of Contact. This information will be held on standard recording forms as a consistent record.

10. Licence details – adaptation

10.1. Representatives of the licence holder, SGA, GWCT and SNH will meet in October 2018 and February 2019 to review the operation of the licence.

10.2. Baseline

10.3. In March 2018 GWCT will provide a baseline for wading bird population performance in the area, presenting numbers and fledging success.

10.4. If more stakeholders get involved with further monitoring in the Strathbraan area the licence areas should be extended.

10.5. The number and means of take of ravens in 2018 will be assessed.

10.5.1. It is expected there will be no measurable effect of control in 2018.

10.6. Management effects

Comment [redacted]: Need to highlight these points to [redacted] that the draft licence needs to be updated to include these control measures.

- 10.7.** A review of these parameters will be undertaken in October 2018 to determine the content of the 2019-2020 licence.
- 10.8.** The review will consider whether the wading bird population remained stable, increased or declined in number, and whether fledging success was better, the same as or declined compared to baseline years.
- 10.9.** Stability or improvement would suggest no changes to the 2019-2020 licence provisions.
- 10.10.** Decline in numbers of breeding success might indicate either the need for further reductions in predation pressure (more ravens taken, or taken in different ways or contexts), or that raven control is ineffective.
- 10.11.** The presumption would be to continue to operate the licence for another two years before drawing any conclusion.



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Scottish Natural Heritage
Species Licensing
Great Glen House
Leachkin Road
Inverness
IV3 8NW
01463 725364
e-mail: licensing@snh.gov.uk

Bird science and research project Licence		
Licence Number: 102489	Valid from :01-MAR-2018	Valid to :31-DEC-2019
Licence Holder : [REDACTED]		
Address: [REDACTED]		
Additional Persons		
Name	Role	Additional Conditions
List of all controllers	Agent	
This Licence is Granted under the following Legislation:		
Wildlife and Countryside Act 1981 (as amended): Section 16 (1) (a)		
Project Details		
This licence permits the control of up to 92 ravens by those persons listed as agent and as part of the Strathbraan Community Collaboration for Waders project. The project is for the purpose of science, research or education in order to investigate the potential impacts of control on wader productivity. All works must be carried out in accordance with the licence application and subsequent correspondence agreed in writing between SNH Licensing Team and the licence holder, but subject to modifications or amendments imposed by the conditions of this licence.		
Activities, species and locations covered by this licence are listed in Annex 1		
Conditions		
1	All activities must be carried out in accordance with those set out in the licence application and supporting document(s) and any subsequent correspondence agreed in writing with the SNH Licensing Team, but subject to any modifications or amendments imposed by this licence.	
2	While engaged in work authorised by this licence, the licence holder and agents must each be able to produce a copy of this licence to any Police Officer, authorised person, or official of SNH on demand.	
3	Multi-catch cage-traps may be used to trap ravens under this licence. Traps must be used in accordance with the methods and conditions required by SNH General Licence 01/2018.	
4	Ravens can only be shot from groups of three or more birds, and not within 500m of known nest sites. Ravens may not be shot at roost sites.	
5	All persons shooting or trapping ravens under this licence must report the number of birds they have shot back to the licence-holder on at least a weekly basis. It is the responsibility of the licence-holder to ensure that the bag limit of this licence is not breached.	
6	This licence permits the use of semi-automatic weapons but does not permit the use of any other firearm prohibited by section 5 of the Wildlife and Countryside Act 1981 (see note 8).	
7	Some shot birds may be found to bear leg-rings or other unique marks. Details of any such markings and the date and place of shooting must be reported to the British Trust for Ornithology. Instructions for doing this may be found at http://blx1.bto.org/euring/lang/pages/rings.jsp?country=EN	
8	Monitoring must be carried out in accordance with the licence application. This includes; annual coordinated non-breeding raven counts, raven breeding pair estimates (nest counts), 17 wader transects and 6 Vantage Point counts for waders.	
9	No later than one month after the date on which this licence expires, the licence holder must provide SNH Licensing Team with a licence return, detailing all actions carried out under this licence. The return must include details of numbers of ravens controlled and method of control used as well as the wader and raven monitoring results.	

Notes	
Licence holders or any other persons covered by this licence should note the following;	
1	This licence is granted subject to compliance with the conditions as specified. Anything done otherwise than in accordance with the terms of the licence may constitute an offence.
2	Agents may work independently of the licence holder. It is the responsibility of the licence holder to ensure that agents have the appropriate training and experience and that they understand the terms and conditions of this licence.
4	Nothing in this licence shall confer any right of entry on to land or property.
5	This licence may be modified or revoked at any time by SNH.
6	This licence only exempts any legal provision contained in the Wildlife and Countryside Act 1981 (as amended).
7	'Multi-catch cage-trap' means a trap defined as such in SNH General Licences 1-3 2018.
8	Methods of killing prohibited under section 5 of the Wildlife and Countryside Act 1981 include; automatic weapons and shot-guns with a barrel that has an internal diameter at the muzzle of more than one and three-quarter inches.

This licence is granted subject to compliance with the terms and conditions specified

Licence no: 102489

Authorised on behalf of Scottish Natural Heritage by: Date:

Licence no: 102489

Annex 1: Permitted activities

Action	Purpose	Species	Location	Grid Reference	Method
Kill and take	Science, Research and Education	Raven	Within the area shown on the Map entitled 'Strathbraan raven licence 102489 - Geographical Boundary'	-	Multi-catch cage trap

Action	Purpose	Species	Location	Grid Reference	Method
Kill	Science, Research and Education	Raven	Within the area shown on the Map entitled 'Strathbraan raven licence 102489 - Geographical Boundary'	-	Shooting

This licence is granted subject to compliance with the terms and conditions specified

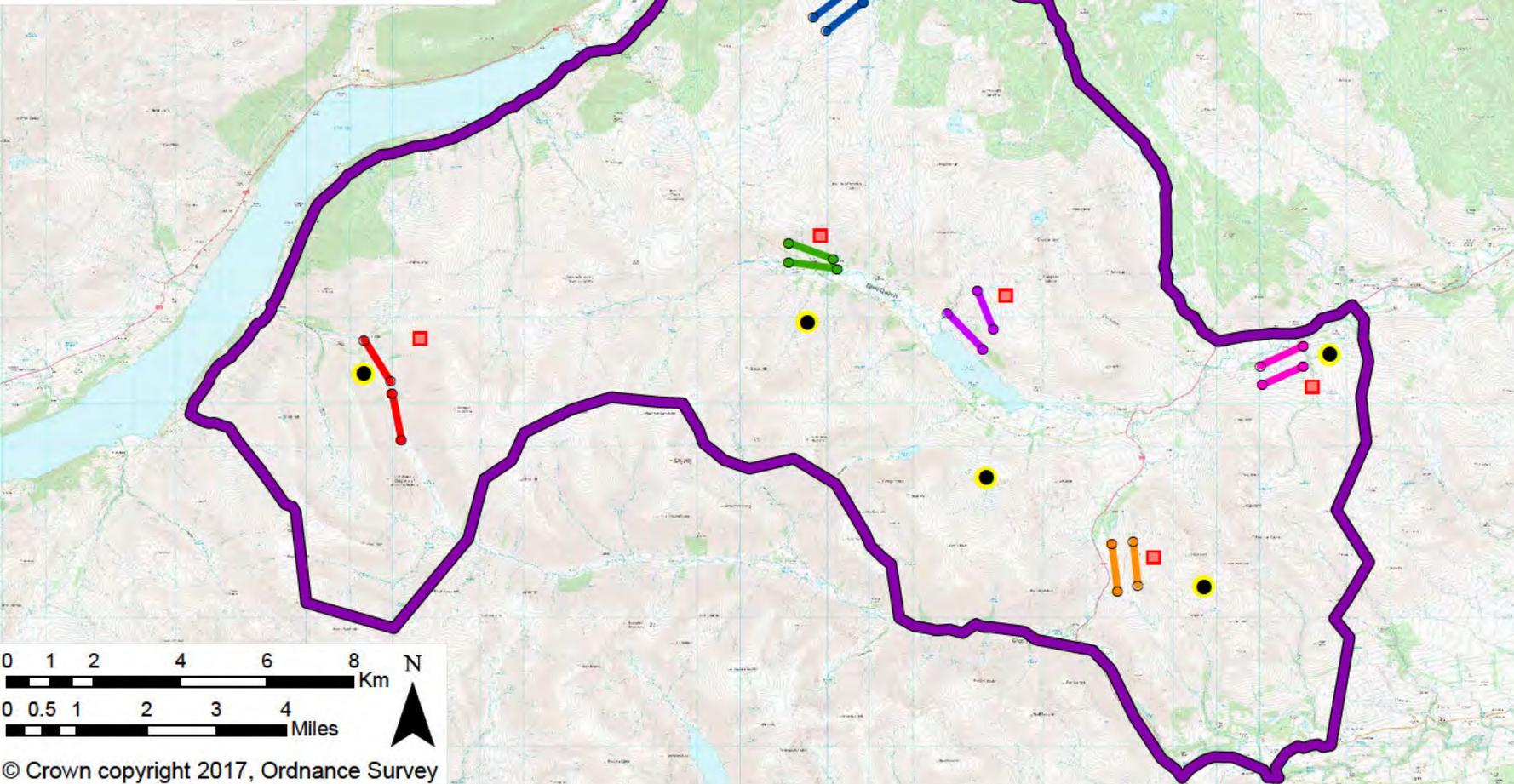
Licence no:102489

Authorised on behalf of Scottish Natural Heritage by: Date:

Strathbraan Wader Transects

Transect

- | | | |
|--|---|---|
|  AG1 |  LD1 |  Wader breeding VP |
|  GA1 |  LO1 |  Raven VP |
|  GD1 |  UR1 |  Boundary |



From: [REDACTED]
To: [REDACTED]@gov.scot"
Subject: RE: raven research - Strathbraan
Date: 08 March 2018 08:08:00
Attachments: image001.gif
image002.gif

Hi [REDACTED]

As you know, the original application for this came in last year and our assessment was that providing the requisite baseline information was gathered in 2017 we would be minded to grant a licence in 2018 (and up to 5 years in total if it was shown to be yielding useful results).

About 2 weeks ago it became evident that the data had not been gathered to the extent that was originally proposed and therefore we said that we would not be willing to grant the licence as proposed but could consider a revised proposal if they could develop something that would be sufficiently robust. The outline of that proposal has just been submitted – it is effectively a slightly smaller scale trial now (about 60% of the original size), focussed around areas where there was adequate data collection.

The data issue is a disappointment for what was meant to be a collaborative project, but I suspect that the revised proposal will largely address this and encourage those estates that didn't collect the data last year to do so this year. The bottom line is that it is a reasonable application to try to improve our understanding of impacts of predation on red-list species. It is not an academic study, but it is one that encourages collaboration, is adaptive, and will not pose a threat to wider raven conservation.

My understanding is that there was discontent expressed at the Working for Waders workshops yesterday, primarily by RSPB, about the proposal, but we have to be clear that this is not a working for waders project and has come in independently.

Briefly on [REDACTED] comments about breeding birds - the licence will aim to minimise the risk of breeding birds being shot, by focussing on larger groups of birds and away from nest sites.

Happy to discuss further if you like

[REDACTED]

From: [REDACTED]@gov.scot [REDACTED]@gov.scot]
Sent: 07 March 2018 15:38
To: [REDACTED]
Subject: FW: raven research - Strathbraan

Hi [REDACTED]

Any thoughts on the email below from [REDACTED] ?

[REDACTED]

[REDACTED]

From: [redacted] [\[redacted\]@rspb.org.uk](mailto:[redacted]@rspb.org.uk)
Sent: 07 March 2018 14:49
To: [redacted]
Subject: raven research - Strathbraan

Good afternoon, [redacted]

We have been aware for some time of moves towards large-scale raven killing in the Strathbraan area of Perthshire. We now understand that SNH, having informed prospective licensee(s) that a 'conservation of wild birds' licence would be unlikely to have sufficient evidential basis, are considering issuing a 'research' licence. This would involve the killing of non-breeding ravens but during the breeding season (we don't to enough detail to understand how such birds would be distinguished). The research purports to look into raven impacts on breeding waders and appears to be confined to land largely managed for intensive grouse shooting.

We were wondering if SNH had held any discussions with SG about this and if you had therefore formed a view about it.

Regards

[redacted]

[redacted]

[redacted]

rspb.org.uk



RSPB logo



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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadaichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh agus fios a leigeil chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

From: [REDACTED]
To: [REDACTED]
Subject: RE: SCCW-WCL Licence 180304 (2)
Date: 11 March 2018 20:29:25
Attachments: SCCW_WCL Appendix 1 Boundary and Summary Maps of Areas and Counts 2018.pdf
SCCW_WCL Appendix 2 Transect Map.pdf
SCCW-WCL Licence 180311.docx

Good Evening [REDACTED]

Hope all is well. Please see attached the revised version of the Strathbraan Application that [REDACTED] and I have been working on this weekend.

I hope the edited comments and extra information provided meets requirements. If you have any questions please get back in touch.

Thanks for your time.

[REDACTED]

From: [REDACTED]@snh.gov.uk]
Sent: 09 March 2018 12:08
To: [REDACTED]@gwct.org.uk>; [REDACTED]@gwct.org.uk>; [REDACTED]
[REDACTED]
Subject: RE: SCCW-WCL Licence 180304 (2)

[REDACTED]

Thanks for this, it's very useful.

I agree re. the principle that this wasn't about individual farms and estates – this was the basis of developing the overall boundary and aims of the project. However, from a practical perspective and understanding what activity is permitted on the ground and staff from which estates are acting under the licence this is really useful. Hopefully not a big ask.

I've had a useful chat with [REDACTED] and have had some correspondence with them myself so hopefully the [REDACTED] issue is also resolved.

Re. additional counts I just want to make sure that absolutely everyone is clear about expectations so I'd like to remove any ambiguity and guarantee commitment. Hopefully this can be addressed in the revised application.

Regarding 'effort' the information provided and context with Langholm is useful. The key of course is about having a reasonable and achievable monitoring regime that is suitably robust to allow us to draw meaningful conclusions from it to move the discussion forward. Comparing transect lengths against trial area and using the areas provided by your colleague gives the

following;

Langholm – 1km transect per 1000Ha

Original Strathbraan proposal – 0.68km per 1000Ha (based on 34km of transects in an area of 50000Ha)

Revised Strathbraan proposal – 0.41km per 1000Ha (based on 12km of transects in an area of 29000Ha)

For obvious reasons I think we would accept that expecting levels of monitoring to mirror Langholm might be unrealistic. However, what I was looking for was your opinion as to whether this further reduced level of survey effort (even with the reduction in boundary area) is still going to allow a meaningful comparison of the impacts of control for the proposal.

Happy to discuss

█

From: █ [@gwct.org.uk](mailto:█@gwct.org.uk)
Sent: 08 March 2018 15:30
To: █
Subject: RE: SCCW-WCL Licence 180304 (2)

█

Many thanks for this.

I've included [comments](#) below. Hopefully these help.

█

From: █ [@snh.gov.uk](mailto:█@snh.gov.uk)>
Sent: 08 March 2018 11:17
To: █ [@gwct.org.uk](mailto:█@gwct.org.uk)>; █ [@gwct.org.uk](mailto:█@gwct.org.uk)>
Subject: SCCW-WCL Licence 180304 (2)

Hi Both

Please see attached comments on the revised application – hopefully self-explanatory.

Most relate to just giving the proposal a bit more clarity but a few points and general observations to draw out as follows;

Can you provide estate boundaries and names within the proposal area? This is important from my perspective in terms of us understanding who has participated so far and justification for where control is permitted. It would be good to be able to cross-reference these directly with the summary count data – allowing us to know which transects are which and where they are geographically. This issue is also relevant in terms of recent discussions with █ – see below.

1. We established the principle early on this isn't about individual farms or estates but about area wide benefit. The issue I think we are dealing with is that the counts have to be at a density that makes some sort of reasonable sense across the landscape and I'd suggest we have achieved this.

Could you clarify what the situation is re. [REDACTED] as I am getting conflicting views from different sources. [REDACTED] you mentioned that they were now fully on board but that is not the message that I am getting. My take on this is that they should be on board and in them doing so it will help support the wider project and make it more robust.

2. [REDACTED] and [REDACTED] need to help us with this as it is a local engagement issue.

I note the future monitoring commitment in the proposal reflect what was gathered in 2017 i.e. the proposals are to monitor in 2018 only those sites that were monitored in 2017. However, even within the revised boundary area the level of monitoring carried out in 2017 was significantly less than what was proposed in the original application. Is this saying that there is no commitment in future to monitor those sites?

3. My understanding is that the group's intention is to increase counts both within the new boundary (but probably only another 2 or so) and to expand counts within the original boundary. The accession of [REDACTED] would of course help immediately.

It would also be useful [REDACTED] to get your views on how the revised proposal affects the potential robustness of the project in terms of the principle aim of informing us of the potential benefits control.

4. As suggested by my response (1) I think there is a reasonable database from which to assess change. Six BBS transects from the Joint Raptor Study at Langholm were selected for use as representative of upland breeding birds for the DETR study (Smith et al 2000). This is a density of 12km transect per 12,000ha. I'm afraid I don't know the area encompassed by the smaller licence boundary yet but I will ask [REDACTED] to work out the transect length to area.

Finally I note the new proposal for baiting ravens. Whilst I'm not opposed to this in principle it would be good to try to bring this, and the raven control methods more widely (including use of decoys), together in such a way to show that you can minimise the risk of breeding birds being removed from the population. On a related note you will see that I have suggested a 500m exclusion of shooting around raven nests in the draft licence – this is an arbitrary figure but again any view on this would be welcome. As I've said previously it would be good to get these areas clear on a map.

5. I'm not sure what you want – raven nests marked on a map and an agreement to have no control within a 500m boundary of these? Clearly a decision for the applicant.

I appreciate that this is more work, but as discussed previously, the reality of the level of monitoring undertaken was disappointing and I need to make sure that what we are considering licensing and why is clear and defensible.

Happy to discuss



nature.scot – Connecting People and Nature in Scotland - [@nature_scot](https://twitter.com/nature_scot)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

--

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Tha am post-dealain seo agus fiosrachadh sam bith na chois dìomhair agus airson an neach no buidheann ainmichte a-mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsèar-siostaim no neach-sgrìobhaidh.

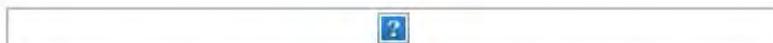
Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.



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Application to Scottish Natural Heritage:

Licence to protect wading birds from raven predation, 2018-2019.

Strathbraan Community Collaboration for Waders (SCCW)

1. Application

1.1. Licence sought

A licence to take and kill ravens (*Corvus corax*) for the purposes of conserving wild birds, notably curlew (*Numenius arquata*), lapwing (*Vanellus vanellus*) and golden plover (*Pluvialis apricaria*) in a defined area of western Perth & Kinross (see Appendix 1) during the periods 1/3/18 - 1/3/19.

1.2. Competence

Scottish Natural Heritage (SNH) is an 'appropriate authority' and has powers to grant such a licence under Section 16 subsection (1)(c) of the Wildlife and Countryside Act 1981 (as amended), subject to the provisions of Section 16, subsections (1A) and (5).

1.3. Proposed Licence Holder

1.3.1. Strathbraan Community Collaboration for Waders

1.3.2. Point of Contact and Licence Holder: [REDACTED]

2. Reason for Application

2.1. Context

In 2016, *Understanding Predation* (UP), commissioned by Scottish Government, funded by SNH and managed by Scotland's Moorland Forum, concluded that six wild birds had shown widespread declines across Scotland since the 1960s (Appendix 4). Included were the three wading birds this particular licence application seeks to conserve, Curlew (CU), Lapwing (L) and Golden Plover (GP). UP also showed the value of using local knowledge, that of land managers and community residents, to scrutinise reasons for decline and possible solutions.

2.2. Need

The proposed licence area, in western Perth & Kinross, has a wide diversity and area of habitats which appear optimal for breeding waders. It seems likely, from local knowledge and third party wader survey work (see testimony), that many of the valley flats, moor and montane tops in this landscape are regionally important for breeding waders (noting the area's inclusion on the SRDP AECS wading bird options targeting map and the importance of the area in the BTO Bird Atlas 2017-11; see Appendix 4). Over the last 15 years, in line with much of Scotland, ravens have become increasingly commonplace in the area (see testimony). The welcome expansion of the raven population has increased predation pressure on the wading birds. Predation is of eggs, chicks and adults by ravens, during the raven and wader breeding season. The fact that this predation takes place is established by submissions to UP and by the local knowledge and records of the area's local community (Appendix 5). A licence to take ravens is needed to address two issues: (1) that any risk this predation pressure poses to these core populations is currently unmanageable and (2) that impacts on the populations of waders are hard to quantify.

2.3. Collaboration

Understanding Predation agreed urgent action was required to conserve wading birds and that collaborative approaches should be considered. This collaborative licence application seeks to take that objective forward. The 'Strathbraan Community Collaboration for Waders' (SCCW) represents some of the local land management (farmers, gamekeepers) and private interests in the area who value wading birds for their biodiversity, social and economic value to the area and Scotland more widely. The application is supported by Scottish Gamekeepers Association and technical advice and support, notably data gathering and interpretation, is being provided by Game & Wildlife Conservation Trust.

2.4. Adaptation

Understanding Predation also found that to better conserve ground nesting birds, adaptive approaches to conservation management should be considered. Adaptive approaches, where management techniques are amended, the effect of the changes on the species of interest monitored and assessed, and used to inform new management approaches, are relevant in management contexts. In this context, we seek to adapt the practices and techniques used for the legal predator control of some corvids, notably the common/hooded crow (*Corvus corone*) under General Licence (I) to take non-breeding ravens, to secure the current breeding performance of this core population, and to establish whether this can contribute to the enhancement of core populations of wading bird species.

2.5. Justification

Such a licensable approach appears justified as:

- there are no immediately apparent other satisfactory land management actions to further conserve wading birds in this area (habitats and land management, including farming and predator control, in the identified areas are suitable for waders) – Appendix 6.
- such a licence is necessary to help establish whether lethal raven control will further conserve wading birds.
- the licence is being sought for a defined period, area, season, range of techniques, numbers and age class, such that it will also protect raven conservation status.

3. Licence Objectives

3.1. The three objectives of the licence (below) reflect the common aim of *Understanding Predation*: to achieve sustainability in both predator and prey populations, notably by:

- Maintaining and/or improving existing populations of CU, L and GP in the defined area, notably by conserving breeding success of these conservation listed species.
- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

4. Data Gathering

4.1. The three licence objectives require data to be gathered from the licence area on wading bird populations (to monitor change and success), raven populations (to monitor management effect and conservation status) and management (to describe activity undertaken so this can be modified if required).

5. Raven monitoring

5.1. The licence holder will co-ordinate annual, landscape scale raven population censuses in the licence area. This will provide a measure of recruitment of ravens from non-breeding to breeding status.

5.2. Non-breeding flocks:

- 5.2.1. The focus of the licence application is on reducing and understanding the predation impact of non-breeding flocks of ravens.
- 5.2.2. Two vantage point count of ravens, one in spring and one in autumn.
- 5.2.3. The count will report ravens seen for the licence area as a whole.
- 5.2.4. These counts will be complimented by recording other raven sightings made during daily work. These will be recorded onto standard recording forms.
- 5.2.5. Predation of wading birds eggs, chicks and adults by ravens, observed by land managers will be recorded.
- 5.2.6. GWCT will maintain a raven sighting database.

5.3. Breeding Pairs:

5.3.1. An estimate of the number of breeding pairs of raven in the area will be recorded each year.

5.3.2. GWCT is maintaining a breeding raven site database and has produced a 500m buffer zones around nests.

6. Wading bird monitoring.

6.1. The licence holder will co-ordinate a wading bird (wader) population census in the licence area. The census will record breeding pairs, and estimate fledging success.

6.2. These data will form a baseline measure of presence and success, and will be used alongside data on regional and national trends in wader numbers from the BTO Atlas, wader surveys undertaken during work on the Beaulieu-Denny powerline, and wader count data derived from GWCT grouse count sites. Feedback from the licence holder and trends in wader numbers and fledging will be used to guide the setting of the raven cull limit with SNH.

6.3. Further information on the species of conservation interest, status and impacts are in Appendix 4.

6.4. Breeding Waders (local knowledge)

6.4.1. The area was stratified by identifying core and improvable wading bird populations were identified using the local knowledge of the farming and keeping community for the period 2012-2016 (Appendix 1 and 2). The areas have suitable habitat and land management (farming and keeping activity) for waders to breed.

6.4.2. A subjective performance of wading birds in these areas is assessed at the end of each breeding season.

6.5. Breeding Waders (transect counts)

6.5.1. Transect counts have been used to quantify wader abundance and breeding performance, providing additional data on which to assess conservation status and the effects of management.

6.5.2. Counts are based on walked transects, a modified BBS type approach. Areas of interest are described in Appendix 1, transects in detail in Appendix 2 and the monitoring protocol is described in Appendix 3.

6.5.3. Data will be collected from at least 8 sets of transects to quantify breeding wader abundance in a variety of habitats. Ideally all properties will have 2 sets of transects.

6.5.4. Six vantage point counts will be undertaken to measure productivity in areas of 250m x 250m.

6.5.5. The data will be reported to GWCT who will maintain a breeding wader database.

6.5.6. Data collection began in mid-April 2017.

7. Licence details - period

7.1. Proposed Start Date: 1st March 2018

7.1.1. **Proposed End Date:** March 1st 2018 to December 31st 2019.

7.1.2. Reasoning: Within a year this protects the majority of first (day 100) and second nests of CU, L. and GP, at the critical time when they are most vulnerable to predation. Between years, a reasonable period over which the management impact can be assessed on both RN and CU, L. and GP. The March 1st start enables those operating under the licence to pre-empt a build-up of RN in any core area, to make these highly intelligent birds warier and easier to move on, before CU, L. and GP start to settle for nesting.

7.2. It is intended this licence will be re-issued for 5 years to enable an assessment of management effects.

8. Licence details – licenced area

8.1. Details of the area in which predation is occurring

The area comprises open heather moor, hill edge, farmland, watercourses and forestry in the Eastern Lowlands National Heritage Zone (16). Much of the area is under land management that is highly suitable for conserving wading birds (Appendix 6).

- 8.2. The boundary of the area within which the licence will be operated is indicated in the attached plans (Appendix 1).
- 8.3. Verbal description: The boundary's western point is the village of Ardtalnaig, Perthshire. From there it runs below the A827 marking the north and east parts of the licence area continuing along until to the road junction where the A826 joins the A822. Aldville Bridge is the far eastern point of the mapped area. From here the boundary goes directly south encompassing Logiealmond Estate and then Glenalmond Estate following the BA063 rejoining the A822 at Buchanty Junction. The River Almond is the southern boundary area and runs north west eventually meeting the north side of Auchnafree which then connects on to Ardtalnaig Village again.
- 8.4. The boundary is indicative, and it is proposed that no licensed activity will take place within 50m of the boundary. The boundary area does not assume the agreement or otherwise of landowners and tenants within it to the terms of the licence.

9. **Licence details – raven control**

9.1. **Number**

- 9.2. The licence will allow 69 ravens (40% of non-breeding ravens observed during the co-ordinated count on 31st March 2017) to be taken in 2017.

9.2.1. We understand that using current population and range data, and research currently being undertaken, removal of 40-50% of sub-adult ravens is likely to have no lasting damage on the conservation status of RN. We understand that the output from a national raven Population Viability Assessment (PVA), in combination with data on regional and national trends in raven numbers from the BTO Atlas, raven observations from grouse count areas, feedback from the licence holder and trends in wader numbers and fledging, will be used to guide the setting of a cull limit.

- 9.3. The number to be taken in 2019 will be subject to review in October 2018 between the licence holder, SNH and GWCT.

9.4. **Breeding status**

- 9.5. Efforts will be made to target only flocks of ravens, these being indicative of non-breeding status. Explicitly breeding pairs will not be taken. This management option will be reviewed if data indicates the conservation of wading birds can only be achieved by taking pairs, and that this can be done without impacting raven conservation status.

9.6. **Methods of taking**

9.6.1. Shooting – the safe use of suitable firearms during daylight hours will be permitted. The licence will require all those using firearms to have current certificates and to be operating over ground with the approval of the owner. The use of electronic calls will be permitted.

9.6.2. Multi-catch traps – the use of multi-catch traps to take ravens will be permitted. The use of raven as decoys and the taking of ravens in multi-catch traps will be regulated as per the guidance contained in General Licence (1) for the common/hooded crow (*Corvus corone*).

9.6.3. Pre-feeding using wild game will be permitted in areas outwith the 500m buffer area around identified raven nests. Feed stations will be discrete, limited in size 20m square and a minimum of 10 feeding station in an area and decaying bait will be removed.

9.6.4. Authorisation is not being sought at this stage to take ravens in Larsen or Larsen mate traps, or in spring-over traps, or to shoot birds at roost.

- 9.7. Those operating under the licence (authorised by the licence holder) will have completed GWCT training in corvid control which details the importance of humane dispatch.

9.8. The licence will specify that the remains of all ravens taken and/or killed will be disposed of discreetly and carefully.

9.9. Reporting

9.10. There will be joint briefings by a group comprising SNH, GWCT and SGA prior to the start of the licence on monitoring results, targets for RN and wader numbers.

9.11. Achieved raven culls will be communicated by those operating under the licence (authorised by the licence holder), on a weekly basis, to the licence's Point of Contact. This information will be held on standard recording forms as a consistent record.

10. Licence details – adaptation

10.1. Representatives of the licence holder, SGA, GWCT and SNH will meet in October 2018 and February 2019 to review the operation of the licence.

10.2. Baseline

10.3. The 2017 baseline for wading bird population performance in the area has been presented to SNH.

10.4. It is proposed that if more stakeholders carry out the requisite raven and wading bird monitoring in contiguous areas beyond the initial Strathbraan area, the licence areas should be extended.

10.5. The number and means of take of ravens in 2018 will be assessed.

10.5.1. It is expected there will be no measurable effect of control in 2018.

10.6. Management effects

10.7. A review of these parameters will be undertaken in October 2018 to determine the content of the 2019-2020 licence.

10.8. The review will consider whether the wading bird population remained stable, increased or declined in number, and whether fledging success was better, the same as or declined compared to baseline years.

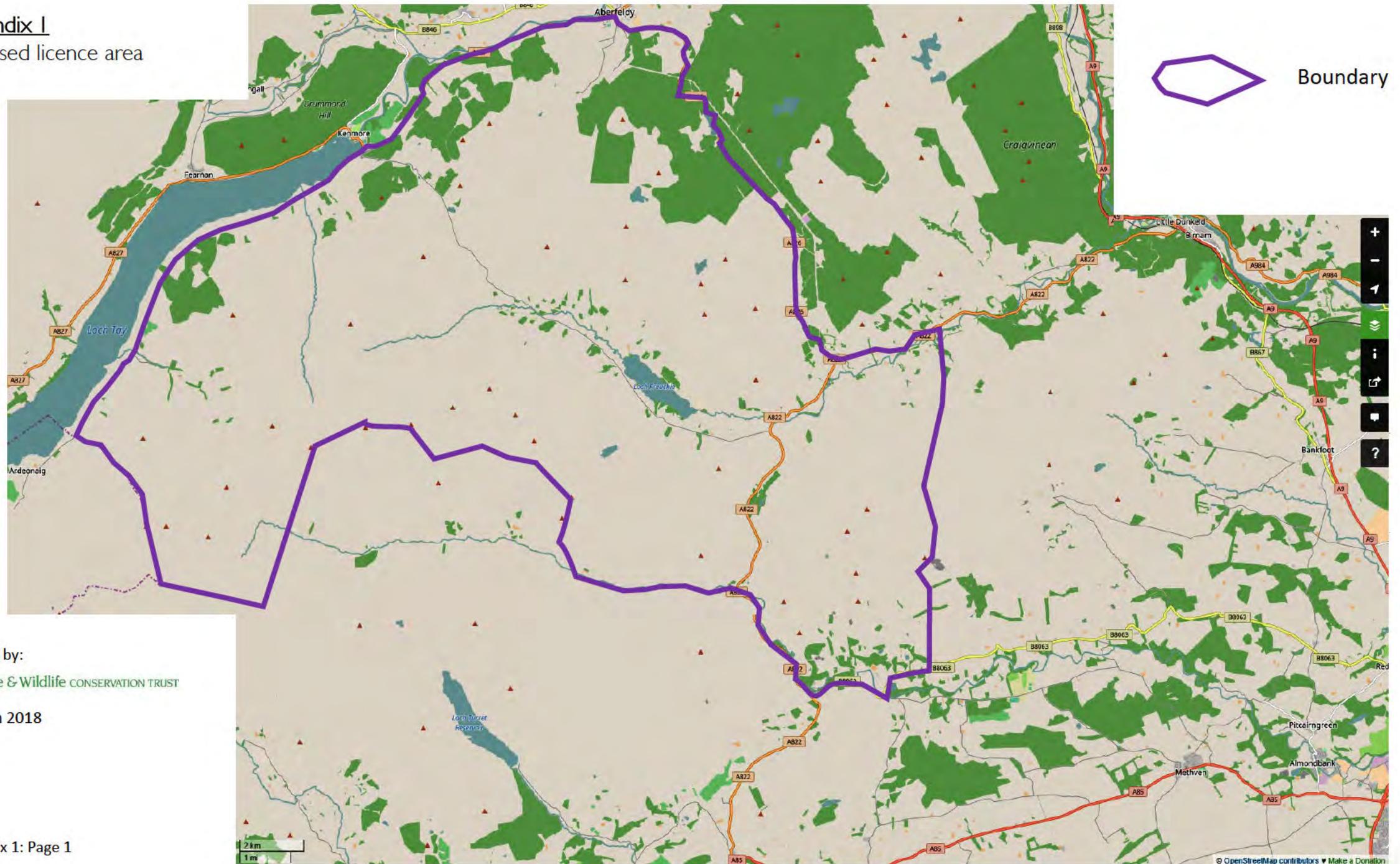
10.9. Stability or improvement would suggest no changes to the 2019-2020 licence provisions.

10.10. Decline in numbers of breeding success might indicate either the need for further reductions in predation pressure (more ravens taken, or taken in different ways or contexts), or that raven control is ineffective.

10.11. The presumption would be to continue to operate the licence for another two years before drawing any conclusion.

Appendix I

Proposed licence area



Mapped by:



9 March 2018



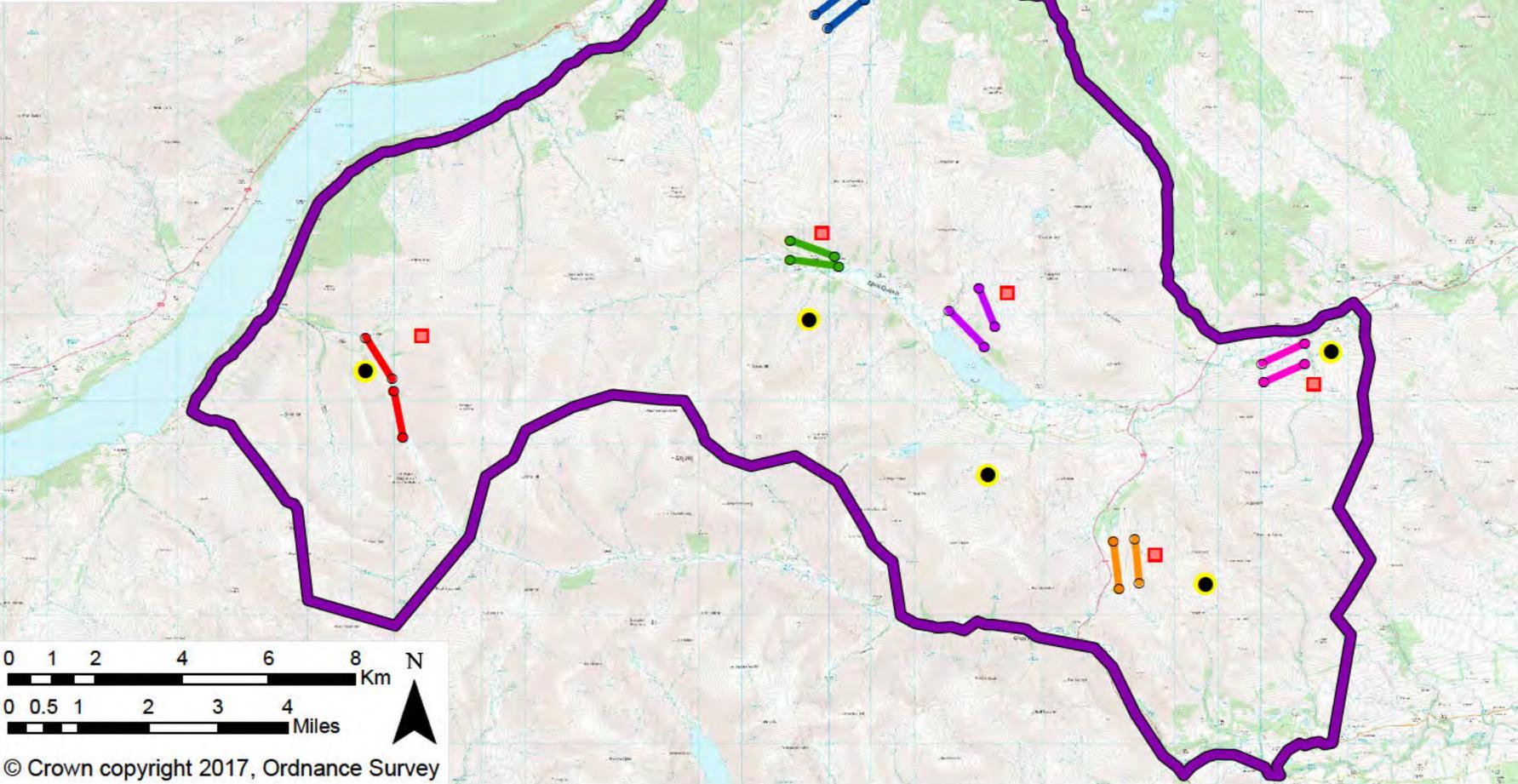


Mapped by:
 Game & Wildlife CONSERVATION TRUST
 Scotland
 9 March 2018

Strathbraan Wader Transects

Transect

- | | | |
|--|---|---|
|  AG1 |  LD1 |  Wader breeding VP |
|  GA1 |  LO1 |  Raven VP |
|  GD1 |  UR1 |  Boundary |



From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Counts - Email on behalf of [REDACTED]
Date: 15 March 2018 17:07:32
Attachments: image001.jpg
image002.jpg
image003.jpg
image004.jpg
20170504_082304.jpg
20170504_082244.jpg
20170504_082204.jpg
20170504_082147.jpg

[REDACTED]

These data are from [REDACTED] is a sound bloke, and these counts will be accurate. Given they represent a spatial outlier in the count distribution, how might we incorporate them please?

Sorry, a bit brain dead...

[REDACTED]

From: [REDACTED]
Sent: 15 March 2018 16:49
To: [REDACTED]@gwct.org.uk>
Subject: FW: Counts - Email on behalf of [REDACTED]

Hi [REDACTED]

What's our plan with this please? Is it too late to add into the application (regardless how annoying it will be re draw maps again with [REDACTED] & update figures)

Yours

[REDACTED]

From: [REDACTED]@scottishgamekeepers.co.uk]
Sent: 12 March 2018 11:03
To: [REDACTED]@gwct.org.uk>; [REDACTED]@gwct.org.uk>; [REDACTED]
[REDACTED]@snh.gov.uk; [REDACTED]
Subject: FW: Counts - Email on behalf of [REDACTED]

Hi [REDACTED]

Don't understand why these figures have been missed as [REDACTED] has counted twice, two transect wader counts last year. It would be wrong to miss this area out as [REDACTED] has been involved since understanding predation and also took the time to do these counts and has a base line count and more so as he has 5/6 raven nests on his estate. This surely is an important area to show the predation of wader eggs/chicks with so many raven nests in such a small area.

Yours

[REDACTED]

From: [REDACTED]

Sent: 12 March, 2018 9:27 AM

To: [REDACTED]

[REDACTED] [@scottishgamekeepers.co.uk](mailto:[REDACTED]@scottishgamekeepers.co.uk)>

Subject: Fw: Counts

[Sent from Yahoo Mail on Android](#)

----- Forwarded message -----

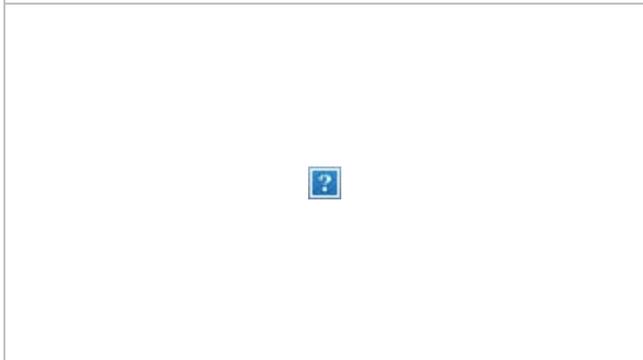
From: [REDACTED]

To: [REDACTED]

Cc:

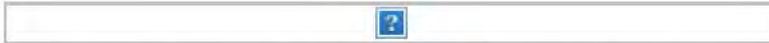
Sent: Fri, 5 May 2017 at 12:59 p.m.

Subject: Counts





Sent from my Samsung device



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Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 3/5/17
 START TIME: STOP TIME: CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	2		CU-1	ALARM	100
2			L-1	VIGILANT	200
3			L-2	DISPLAY	200
4			L-4	CHASING CROWS	50-200
5			OC-2	VIGILANT	100
6					
7					
8					
9					
10					
11					
12					
14					

This card has been developed by the Game & Wildlife Conservation Trust. We would welcome returns from these cards to improve our data on predator impacts. Please contact: scottishhq@gwct.org.uk

Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 3/5/17
 START TIME: STOP TIME: CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	1		L-2	ALARM	50
2			L-1	DISPLAY	100
3			L-2	VIGILANT	200
4			OC-3	VIGILANT	150
5			L-2	DISPLAY	200
6			SN-	ALARM	0
7			CU-2	ALARM	100
8			OC-2	VIGILANT	100
9			CU-2	DISPLAY	100
10					
11					
12					
14					

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Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 3/5/17
 START TIME: [REDACTED] STOP TIME: [REDACTED]

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	2		OC-1	VIGILANT	50
2			C-2	DISPLAY	200
3			OC-1	FLYING	150
4			L-2	VIGILANT	80
5			L-3	CHASING CROW	150+
6					
7					
8					
9					
10					
11					
12					
14					

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Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 3/5/17
 START TIME: [REDACTED] STOP TIME: [REDACTED]

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	1		OC-4	DISPLAY	0
2			OC-1	VIGILANT	100
3			L-2	ALERT	200
4			L-5	ALARM	150
5			OC-1	VIGILANT	50
6			SN-1	ALARM ^{FLUSHED}	0
7			OC-2	VIGILANT	50
8			C-1	DISPLAY	150
9			SN-1	FLUSHED	0
10			L-2	VIGILANT	100
11					
12					
14					

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Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 22/4/17
 START TIME: [REDACTED] STOP TIME: [REDACTED]

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	2		CU-2	ALARM	60
2			CU-1	FLYING	120
3			L-3	ALARM	200
4			L-2	VIGILANCE	70
5			L-1	VIGILANCE	50
6			OC-2	FEEDING	70
7			CU-1	FLYING	150
8			L-4	DISPLAYING	200
9					
10					
11					
12					
13					
14					

RAVEN
 RED KITE
 GULLS

Wader Count (Transect or Vantage Point)

SITE: [REDACTED] OBSERVER: [REDACTED] TRANSECT/VANTAGE POINT NAME: [REDACTED] DATE: 22/4/17
 START TIME: [REDACTED] STOP TIME: [REDACTED]

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	1	00	L-4	FEEDING	50 - 120
2		00	OC-1	"	20
3		00	2 GULLS		
4		10	G-1	FLYING	150
5		10	L-1	DISTRESS	
6		15	G-2	FLYING	100
7		15	OC-3	FEEDING	70
8		15	L-1	FLYING	0
9		15	RAVEN	CALLING	
10		20	L-1	DISPLAY	80
11		20	OC-2	FEEDING	100
12		20	CU-3	FLYING / DISPLAY	70
14		25	SN-1	ALARM	0

Wader Count (Transect or Vantage Point)

OBSERVER: [REDACTED]

TRANSECT/VANTAGE POINT NAME: [REDACTED]

DATE: 22/4/17

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

START TIME:

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	2		L-2	VIGILANCE	100
2			L-1	VIGILANCE	100
3			OC-2	VIGILANCE	50
4			L-1	FLYING	150
5			OC-2	VIGILANCE	100
6			L-2	DISPLAY	100
7			L-1	ALARM	80
8					
9					
10					
11					
12					
14					

Wader Count (Transect or Vantage Point)

SITE: [REDACTED]

OBSERVER: [REDACTED]

TRANSECT/VANTAGE POINT NAME: [REDACTED]

DATE: 22/4/17

START TIME:

STOP TIME:

CLEAR CALM DRY PARTIAL CLOUD BREEZE
 DRIZZLE OVERCAST WINDY RAIN [Circle applicable]

	Trans no	Time	Spp & No.	Behaviour	Dist(m) from Trans & Notes
1	1		OC-2	ALARM	20
2			OC-2	ALARM	40
3			L-2	DISPLAY	200
4			L-4	ALARM (chasing crows)	150
5			OC-2	VIGILANCE	100
6			C-2	DISPLAY	200
7			L-4	FLYING	100
8			OC-4	VIGILANCE	100
9			L-2	VIGILANCE	50
10			L-3	VIGILANCE	80
11			C-2	FLYING	200
12			OC-1	VIGILANCE	60
14			L-3	VIGILANCE	150

SN-1

ALARM

0

This card has been developed by the Game & Wildlife Conservation Trust. We would welcome returns from these cards to improve our data on predator impacts. Please contact: scottishhq@gwct.org.uk

OC-1

VIGILANCE

50

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: List of controllers
Date: 27 March 2018 23:21:11
Attachments: Strathbraan Adaptive Wader Conservation License Application.docx

Hi [REDACTED], please find attached the list of controllers for the license.

Thanks, [REDACTED]

Sent from [Mail](#) for Windows 10

Strathbraan Adaptive Wader Conservation License Application

List of controllers:

[REDACTED]

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: SCCW-WCL Licence 180304 (2)
Date: 27 March 2018 17:24:03
Attachments: image001.jpg

Likewise, thanks [REDACTED] That beer will taste good when this is over the line...!

Sent from my iPhone

On 27 Mar 2018, at 15:05, [REDACTED] <[\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)> wrote:

Brilliant [REDACTED] many thanks

[REDACTED]
[REDACTED]
Game & Wildlife Conservation Trust
[REDACTED]
[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: 27 March 2018 14:58:03
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: SCCW-WCL Licence 180304 (2)

Hi, I am waiting to hear back from one estate then can send the names to [REDACTED]
So should be away by the end of today.

Thanks, [REDACTED]

Get [Outlook for iOS](#)

From: [REDACTED] <[\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>
Sent: Tuesday, March 27, 2018 2:54:31 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: SCCW-WCL Licence 180304 (2)

Good Afternoon All

Any update with our progress please?

Best wishes

[REDACTED]

[REDACTED]
[REDACTED]
Game & Wildlife Conservation Trust
[REDACTED]
[REDACTED]
[REDACTED]

From: [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)>
Sent: 22 March 2018 16:55:13
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: SCCW-WCL Licence 180304 (2)

Hi All

Good stuff – just waiting for the list of controllers to go on the licence [REDACTED]

Cheers

[REDACTED]

From: [REDACTED] <[\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>
Sent: 22 March 2018 11:17
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: SCCW-WCL Licence 180304 (2)

Thank you [REDACTED] for pressing on with this decision.

[REDACTED]

From: [REDACTED] <[\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>
Sent: 21 March 2018 20:22
To: [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)>
Cc: [REDACTED] <[\[REDACTED\]@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)>; [REDACTED]
[REDACTED]

Subject: RE: SCCW-WCL Licence 180304 (2)

Good Evening [REDACTED]

From further discussions with [REDACTED] and [REDACTED] please can we go ahead with the current licence application. [REDACTED] will not be incorporated into the revised map boundary this time round. We hope they will be involved in greater capacity towards the back end of this year. This part of the Strathbraan region would be a key trial area for adaptive management control, notably with the

From: [REDACTED]@snh.gov.uk]

Sent: 09 March 2018 12:08

To: [REDACTED]@gwct.org.uk>; [REDACTED]@gwct.org.uk>;
[REDACTED]
[REDACTED]

Subject: RE: SCCW-WCL Licence 180304 (2)

[REDACTED]

Thanks for this, it's very useful.

I agree re. the principle that this wasn't about individual farms and estates – this was the basis of developing the overall boundary and aims of the project. However, from a practical perspective and understanding what activity is permitted on the ground and staff from which estates are acting under the licence this is really useful. Hopefully not a big ask.

I've had a useful chat with [REDACTED] and have had some correspondence with them myself so hopefully the [REDACTED] issue is also resolved.

Re. additional counts I just want to make sure that absolutely everyone is clear about expectations so I'd like to remove any ambiguity and guarantee commitment. Hopefully this can be addressed in the revised application.

Regarding 'effort' the information provided and context with Langholm is useful. The key of course is about having a reasonable and achievable monitoring regime that is suitably robust to allow us to draw meaningful conclusions from it to move the discussion forward. Comparing transect lengths against total area and using the areas provided by your colleague gives the following;

Langholm – 1km transect per 1000Ha

Original Strathbraan proposal – 0.68km per 1000Ha (based on 34km of transects in an area of 50000Ha)

Revised Strathbraan proposal – 0.41km per 1000Ha (based on 12km of transects in an area of 29000Ha)

For obvious reasons I think we would accept that expecting levels of monitoring to mirror Langholm might be unrealistic. However, what I was looking for was your opinion as to whether this further reduced level of survey effort (even with the reduction in boundary area) is still going to allow a meaningful comparison of the impacts of control for the proposal.

Happy to discuss

[REDACTED]

From: [REDACTED]@gwct.org.uk]

Sent: 08 March 2018 15:30

To: [REDACTED]

Subject: RE: SCCW-WCL Licence 180304 (2)

██████████

Many thanks for this.

I've included [comments](#) below. Hopefully these help.

██████████

From: ██████████ [@snh.gov.uk](mailto:██████████@snh.gov.uk)>

Sent: 08 March 2018 11:17

To: ██████████ [@gwct.org.uk](mailto:██████████@gwct.org.uk)>; ██████████ [@gwct.org.uk](mailto:██████████@gwct.org.uk)>

Subject: SCCW-WCL Licence 180304 (2)

Hi Both

Please see attached comments on the revised application – hopefully self-explanatory.

Most relate to just giving the proposal a bit more clarity but a few points and general observations to draw out as follows;

Can you provide estate boundaries and names within the proposal area? This is important from my perspective in terms of us understanding who has participated so far and justification for where control is permitted. It would be good to be able to cross-reference these directly with the summary count data – allowing us to know which transects are which and where they are geographically. This issue is also relevant in terms of recent discussions with ██████████ – see below.

1. [We established the principle early on this isn't about individual farms or estates but about area wide benefit. The issue I think we are dealing with is that the counts have to be at a density that makes some sort of reasonable sense across the landscape and I'd suggest we have achieved this.](#)

Could you clarify what the situation is re. ██████████ as I am getting conflicting views from different sources. ██████████ you mentioned that they were now fully on board but that is not the message that I am getting. My take on this is that they should be on board and in them doing so it will help support the wider project and make it more robust.

2. [██████████ and ██████████ need to help us with this as it is a local engagement issue.](#)

I note the future monitoring commitment in the proposal reflect what was gathered in 2017 i.e. the proposals are to monitor in 2018 only those sites that were monitored in 2017. However, even within the revised boundary area the level of monitoring carried out in 2017 was significantly less than what was proposed in the original application. Is this saying that there is no commitment in future to

monitor those sites?

3. My understanding is that the group's intention is to increase counts both within the new boundary (but probably only another 2 or so) and to expand counts within the original boundary. The accession of [REDACTED] would of course help immediately.

It would also be useful [REDACTED] to get your views on how the revised proposal affects the potential robustness of the project in terms of the principle aim of informing us of the potential benefits control.

4. As suggested by my response (1) I think there is a reasonable database from which to assess change. Six BBS transects from the Joint Raptor Study at Langholm were selected for use as representative of upland breeding birds for the DETR study (Smith et al 2000). This is a density of 12km transect per 12,000ha. I'm afraid I don't know the area encompassed by the smaller licence boundary yet but I will ask [REDACTED] to work out the transect length to area.

Finally I note the new proposal for baiting ravens. Whilst I'm not opposed to this in principle it would be good to try to bring this, and the raven control methods more widely (including use of decoys), together in such a way to show that you can minimise the risk of breeding birds being removed from the population. On a related note you will see that I have suggested a 500m exclusion of shooting around raven nests in the draft licence – this is an arbitrary figure but again any view on this would be welcome. As I've said previously it would be good to get these areas clear on a map.

5. I'm not sure what you want – raven nests marked on a map and an agreement to have no control within a 500m boundary of these? Clearly a decision for the applicant.

I appreciate that this is more work, but as discussed previously, the reality of the level of monitoring undertaken was disappointing and I need to make sure that what we are considering licensing and why is clear and defensible.

Happy to discuss

[REDACTED]

[REDACTED]

[nature.scot](https://www.nature.scot) – Connecting People and Nature in Scotland - [@nature_scot](https://twitter.com/nature_scot)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.

<image001.jpg>

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<image001.jpg>

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Briefing and Lines to take

Licence to control ravens for science and research purposes, Strathbraan

Overview

We have just granted a novel and potentially contentious licence application to control ravens over a large area of ground in Strathbraan in Perthshire in order to investigate the impacts on populations of red-listed wader populations.

Background

We received an application in June 2017 from Strathbraan Community Collaboration for Waders (SCCW). It sought to kill ravens for the purpose of conserving wild birds, particularly curlew, lapwing and golden plover. Control was proposed for a period of five years to allow an assessment of the impacts.

The proposal is for an adaptive management approach proposing removal of c.40% of the estimated non-breeding population of ravens from an area originally of c. 50,00Ha, but subsequently reduced to around 29,000 Ha (290 sq km). The number of ravens to be controlled in involved in 2018 is a maximum of 69 birds. The boundaries of the proposal area have been chosen to represent a 'landscape-scale' and collaborative project covering a range of landholdings.

The rationale of the proposal is that the area supports a number of important areas for breeding waders and specifically curlew, golden plover and lapwing (all *red-list species* on the *Birds of Conservation Concern* list), and that raven control could help safeguard and boost productivity of the 'core' populations. Specifically there are 3 stated objectives:

- Maintaining and/or improving existing populations of curlew, lapwing and golden plover in the defined area.
- Safeguarding the conservation status of the raven, notably by specifying constraints on period, area, season, range of techniques, numbers and age class of raven taken.
- Gathering nationally relevant data on wading bird and raven populations to enable further learning and adaptation of the licence over its lifetime.

In order to help measure whether these objectives are being met there is a programme of monitoring proposed to be carried out by participants, to count ravens as well as wader abundance and breeding success. ██████████ of GWCT has helped develop the design of the monitoring protocols and data collection. This monitoring commenced in April 2017.

As licensing authority we have to ensure that there is an appropriate licensing purpose before granting a licence. The application was submitted for the purpose of 'conserving wild birds', but is being considered for the purpose of 'science, research and education'. This is because there has been very little experimental work to establish a link between raven predation and wader population dynamics and rather than assuming that the project will result in conservation benefits for this species, we feel that it will help us to better understand this issue.

Lines to take

What is the status of the application? The licence has been granted for the purpose of science and research. The licence is subject to compliance with its terms and conditions and assurance of continued monitoring to ensure that the work is carried out as proposed.

Why is this application novel or contentious? We have received very few applications in the past for control of ravens to conserve wild birds. None of the applications were successful. The application is potentially contentious on a number of grounds including; the possible perception that control is being sought in order to improve grouse stocks rather than wader numbers, the ongoing conflict between upland grouse moor management and other conservation interests including raptor persecution as well as the difficulties in ascertaining definitive links between predation (and specifically raven predation) and declines in wader populations.

Should a licence be granted in light of suspected Wildlife Crime in the area? It is appropriate to consider the issue of *trust* when assessing licence applications, particularly when considering more novel or contentious cases. There have been some records of wildlife crimes and incidents of loss of tagged raptors on some of the area covered by the application. However, incidents and intelligence in this area have been considered during General Licence restriction meetings with the police in recent years and no restrictions or recommendation to restrict have commenced in this area to date. Given this, and therefore that General Licences can currently be used in these areas, any decision to refuse a licence on this basis could, under challenge, fail the test of rationality. Should these circumstances change in future then it may be appropriate to rescind, or review the boundaries of, the licence area.

Why are SNH minded to grant the licence for science and research purposes and not for conservation purposes? Obtaining definitive evidence for a causal link between predation from one species and declines in populations of a prey species is difficult. Given this we cannot be assured that the grant of a licence to permit these activities for conservation purposes would achieve that particular aim. However, we do feel that the proposal as presented is sufficiently well-designed to be able to *test* whether raven control may be beneficial to the conservation of these very vulnerable species. We accept that this may not provide unequivocal proof but should help to inform this debate and knowledge of the issue and that it can be done so without detriment to the wider raven populations. As such the application can be considered for science and research purposes.

What is the basis of this assessment? The proposal meets the relevant licensing tests set out in the legislation: There is an appropriate licensing purpose (science, research or education) and that there is no other satisfactory solution. It meets the former test by providing a reasonable hypothesis to test impact removal of ravens in a single well-defined project (see above). It meets the *no other satisfactory solution* test on the basis that there are no other research proposals or means to examine this issue.

This is a novel area of licensing and could be considered as contentious but in reality the impact on raven populations (as a green-listed species) should be minimal but it should help contribute to our understanding of relative impacts of raven control on red-listed wader populations that are in serious decline. As well as helping in this respect it will also serve as a useful exercise to explore the feasibility of more collaborative / *citizen science* / adaptive management-type approaches in future.

Are Scottish Government counterparts aware of this application? Yes. When we receive potentially novel or contentious licence applications we are obliged to inform Scottish Government. As such when the application was received we informed [REDACTED] and informed him of our intention to issue a licence subject to receipt of the required information.

Links with other work – This has links to *Understanding Predation* (UP) and the developing *Working for Waders* work that arose from UP. The application is made with strong reference to UP but has not been developed or submitted under that banner or that of *Working for Waders*.

From: [REDACTED]
To: [REDACTED]
Subject: FW: Strathbraan Raven Trial - Licence issued today
Date: 04 April 2018 15:10:00
Attachments: Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Briefing - March 2018.obr

Hi [REDACTED]

See below for info as it is relevant to the area, [REDACTED] was aware of the proposal as it has been on the cards for almost a year but has only just been licensed.

Happy to discuss

[REDACTED]

From: [REDACTED]
Sent: 04 April 2018 15:05
To: [REDACTED]
Cc: [REDACTED]
Subject: Strathbraan Raven Trial - Licence issued today

Dear All

This is just to let you know that the Strathbraan licence was issued today. I attach the briefing and proposed lines to take on this licence.

Happy to discuss

[REDACTED]

[REDACTED]
[nature.scot](#) – Connecting People and Nature in Scotland - [@nature_scot](#)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

From: LICENSING@snh.gov.uk
To: [REDACTED]
Cc: [LICENSING](#)
Subject: Licence no.102489 - Ravens - Science and Research - Strathbraan
Date: 04 April 2018 10:24:08
Attachments: Licence - 102489.pdf

Dear [REDACTED]

I attach a copy of your licence for the Strathbraan Wader project. Please make sure that you understand the terms and conditions of the licence and that everyone operating under it does also.

I will send the map separately in due course.

Kind regards

[REDACTED]

Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████
Name	Role	Additional Conditions
██████████	Agent	██████████

This Licence is Granted under the following Legislation:

Wildlife and Countryside Act 1981 (as amended): Section 16 (1) (a)

Project Details

This licence permits the control of up to 69 ravens by those persons listed as agents and as part of the Strathbraan Community Collaboration for Waders project in the area shown on the attached map. The project is for the purpose of science, research or education in order to investigate the potential impacts of raven control on wader productivity. All works must be carried out in accordance with the licence application and subsequent correspondence agreed in writing between SNH Licensing Team and the licence holder, but subject to modifications or amendments imposed by the conditions of this licence.

Activities, species and locations covered by this licence are listed in Annex 1

Conditions

1	All activities must be carried out in accordance with those set out in the licence application and supporting document(s) and any subsequent correspondence agreed in writing with the SNH Licensing Team, but subject to any modifications or amendments imposed by this licence.
2	While engaged in work authorised by this licence, the licence holder and agents must each be able to produce a copy of this licence to any Police Officer, authorised person, or official of SNH on demand.
3	Multi-catch cage-traps may be used to trap ravens under this licence. Traps must be used in accordance with the methods and conditions required by SNH General Licence 01/2018.
4	Ravens can only be shot from groups of three or more birds, and not within 500m of known nest sites. Ravens may not be shot at roost sites.

5	All persons shooting or trapping ravens under this licence must report the number of birds they have killed and by what means to the licence-holder on at least a weekly basis. It is the responsibility of the licence-holder to ensure that the bag limit of this licence is not breached.
6	This licence permits the use of sound recordings as a lure and of semi-automatic weapons but does not permit the use of any other firearm prohibited by section 5 of the Wildlife and Countryside Act 1981 (see note 8).
7	Some shot birds may be found to bear leg-rings or other unique marks. Details of any such markings and the date and place of shooting must be reported to the British Trust for Ornithology. Instructions for doing this may be found at Click Here
8	Monitoring must be carried out in accordance with the methods in the licence application and supporting information. This includes; annual coordinated non-breeding raven counts, raven breeding pair estimates (nest counts), counts from a minimum of 8 sets of wader transects and 6 Vantage Point counts for waders.
9	No later than one month after the date on which this licence expires, the licence holder must provide SNH Licensing Team with a licence return, detailing all actions carried out under this licence. The return must include details of numbers of ravens controlled and method of control used as well as the wader and raven monitoring results.
Notes	
Licence holders or any other persons covered by this licence should note the following:	
1	This licence is granted subject to compliance with the conditions as specified. Anything done otherwise than in accordance with the terms of the licence may constitute an offence.
2	Agents may work independently of the licence holder. It is the responsibility of the licence holder to ensure that agents have the appropriate training and experience and that they understand the terms and conditions of this licence.
4	Nothing in this licence shall confer any right of entry on to land or property.
5	This licence may be modified or revoked at any time by SNH.
6	This licence only exempts any legal provision contained in the Wildlife and Countryside Act 1981 (as amended).
7	'Multi-catch cage-trap' means a trap defined as such in SNH General Licences 1-3 2018.
8	Methods of killing prohibited under section 5 of the Wildlife and Countryside Act 1981 include; automatic weapons and shot-guns with a barrel that has an internal diameter at the muzzle of more than one and three-quarter inches.

This licence is granted subject to compliance with the terms and conditions specified

Licence no:102489

Authorised on behalf of Scottish Natural Heritage by [REDACTED] Date: 04-APR-2018

Licence no:102489

Annex 1: Permitted activities

Action	Purpose	Species	Location	Grid Reference	Method
Kill and take	Science, Research and Education	Raven	Within the area shown on the Map entitled 'SNH Licence no. 102489: Licence Area'	-	Multi-catch cage trap

Action	Purpose	Species	Location	Grid Reference	Method
Kill	Science, Research and Education	Raven	Within the area shown on the Map entitled 'SNH Licence no. 102489: Licence Area'	-	Shooting

This licence is granted subject to compliance with the terms and conditions specified

Licence no:102489

Authorised on behalf of Scottish Natural Heritage by: [REDACTED] Date: 04-APR-2018

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

On 4 Apr 2018, at 08:04, [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)> wrote:

[REDACTED]

Thanks for this – by my calculations this would mean a bag limit of 7 birds for [REDACTED] (note my figure of 50000 Ha below for the whole licence area is incorrect, it is actually 28900 Ha).

All the best

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

On 4 Apr 2018, at 07:41, [REDACTED] <[\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)> wrote:

Dear [REDACTED]

Just a quick note to say that the licence will be issued today. In response to your two conditions I can offer the following:

<!--[if supportLists]-->1. <!--[endif]-->If you can provide me with the estate area in Hectares I will calculate a *pro-rata* bag limit for [REDACTED] and will communicate that to the licence holder [REDACTED]. There is a responsibility on [REDACTED] as the licence holder to co-ordinate between all those involved to ensure that the overall bag limit is not exceeded. Whilst I can provide you with an estate bag limit can I ask that there is liaison with [REDACTED] to allow for a degree of flexibility in this to reflect the broader scale of the project and, for instance, if numbers in [REDACTED] are particularly low and you are unlikely to achieve the bag limit.

<!--[if supportLists]-->2. <!--[endif]-->I understand your concerns in this

respect and from the perspective of SNH as the licensing authority here

[REDACTED]

If you can get back to me with the estate size I will let you know the bag limit. This will be based upon the relative proportion of the trial area (which is c50000Ha in total) taken up by [REDACTED] multiplied by the overall bag limit (69 birds).

If you would like to discuss further please just get in touch

Kind regards

[REDACTED]

From: [REDACTED] [\[REDACTED\]@snh.gov.uk](mailto:[REDACTED]@snh.gov.uk)

Sent: 09 March 2018 12:10

To: [REDACTED]

Subject: RE: Raven licence application

Dear [REDACTED]

Thank you for your email. I appreciate your disappointment with the response that I provided but I can provide further explanation and comment in light of your email below. [REDACTED]

Whilst we accept that ravens predate waders and that certain wader species are in decline, the evidence linking these two facts (i.e. that ravens are driving declines in waders) is poor. As such the proposal for the wider Strathbraan area has been treated and designed as an experimental approach to be able to objectively gather evidence about wader populations and productivity and what the impacts are of raven control. Doing this in a co-ordinated and relatively large-scale way provides a more robust approach and more robust results. Given the importance of [REDACTED] that you mention then it also could also provide a really useful comparison of the effects of control on wader populations of differing sizes/strengths. The Strathbraan approach is also a good model to look at how collaborative proposals can work in practice – and this collaborative and adaptive approach is something that we believe is a good way forward to looking at conservation concerns in the wider countryside.

It is for all of these reasons that the decision was made on your original application. However, the important point is that this should not preclude the opportunity to carry out control on the estate, to help see if this can have a beneficial impact on the wader populations there and ultimately this should not jeopardise all of the good work that the estate is doing.

[REDACTED] ensuring any activity (control) is regularly fed back to the single point of contact for the licence and by providing the results of the agreed monitoring work to allow for a meaningful comparison and evaluation of the results. All of this would, in my view, be beneficial in moving forward on this issue and understanding the best way to protect wader populations.

Kind regards

[REDACTED]

[REDACTED]
[nature.scot](https://www.nature.scot) – Connecting People and Nature in Scotland - [@nature_scot](https://twitter.com/nature_scot)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

[REDACTED]

From: [Redacted] <[\[Redacted\]@snh.gov.uk](mailto:[Redacted]@snh.gov.uk)>

Date: 16 February 2018 at 11:51:53 GMT

To: [Redacted]

Subject: Raven licence application

Dear [REDACTED]

Many thanks for the application to control ravens on [REDACTED] for the purpose of conserving wild birds. We recognise the potential impacts of ravens on ground nesting birds and particularly on some red-listed waders. As you may know, we are currently processing a licence application by Strathbraan Community Collaboration for Waders (SCCW) to control ravens across Strathbraan and to monitor the impacts of that control on the wader population. This is based upon participants undertaking a series of standardised counts and GWCT collating the data to help inform us how raven control will help the resident populations of these species. This is a really useful opportunity to be able to shed light on this issue and to do so in a robust way that will hopefully inform any future approaches.

At the moment we do not feel that individual applications of this kind offer the opportunity to build our knowledge in this respect, so unfortunately we are not in a position to issue a licence on this occasion. However, could I suggest that you make contact with SCCW (or possibly [REDACTED] at GWCT, who is overseeing some of this work) to look at the possibility of being part of their licence as it strikes me that both your location and situation may well lend itself to inclusion in their work. This has the potential of improving their study and at the same time enabling action on your ground.

Kind regards

[REDACTED]

[REDACTED]

nature.scot – Connecting People and Nature in Scotland - [@nature_scot](https://twitter.com/nature_scot)

Please call SNH's licensing helpline on 01463 725364 to speak to a Licensing Officer

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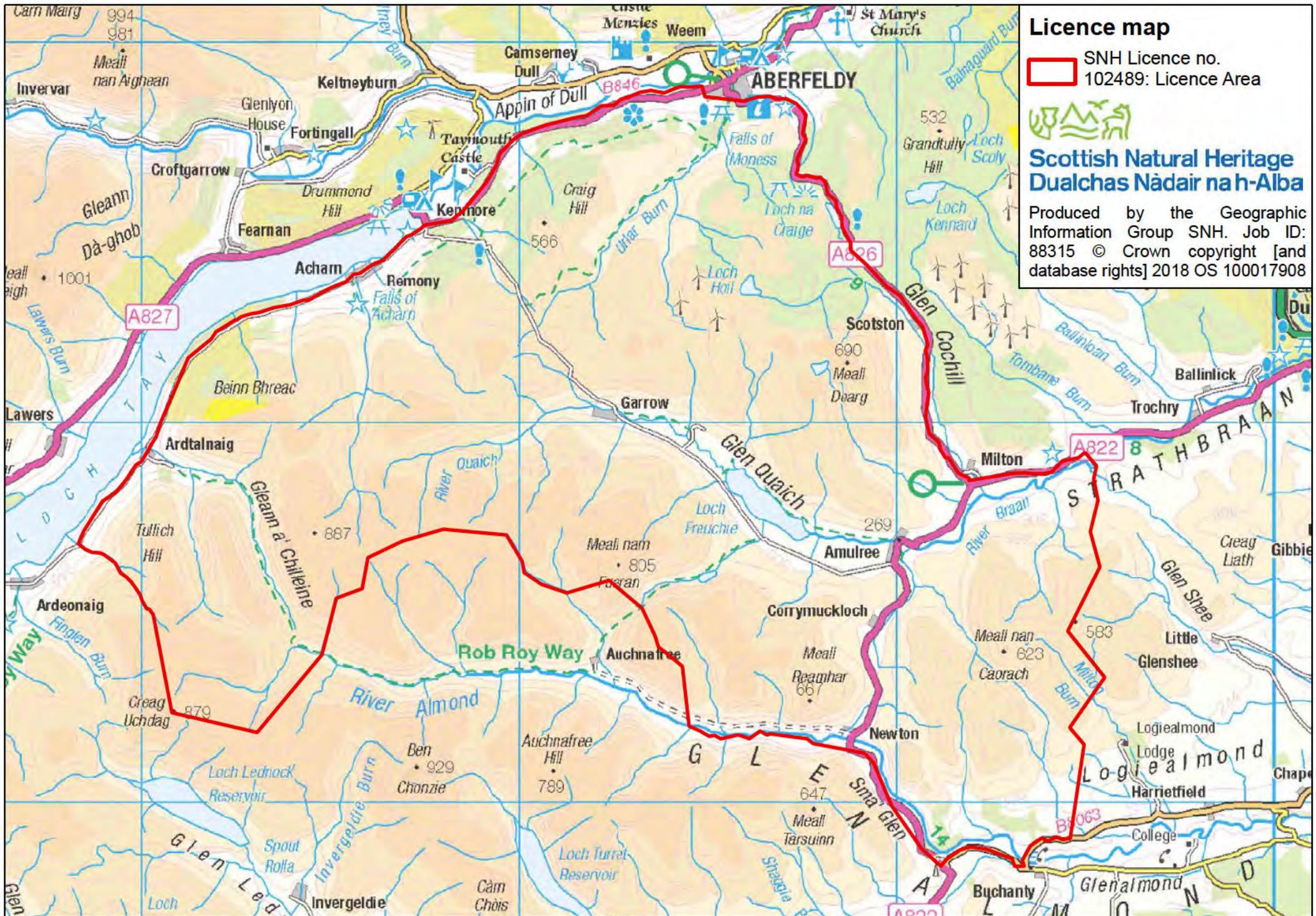
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Please note that for business purposes, outgoing and incoming emails from and to SNH may be monitored.

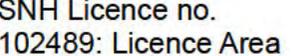
Tha am post-dealain seo agus fiosrachadh sam bith na chois diomhair agus airson an neach no buidheann ainmichte a-mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsèar-siostaim no neach-sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach

agus a' dol a-
mach bho SNH.



Licence map

 SNH Licence no.
 102489: Licence Area



**Scottish Natural Heritage
Dualchas Nàdair na h-Alba**

Produced by the Geographic Information Group SNH. Job ID: 88315 © Crown copyright [and database rights] 2018 OS 100017908

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED] [@gwct.org.uk](mailto:[REDACTED]@gwct.org.uk)
Subject: "Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489
Date: 04 April 2018 14:18:00
Attachments: Licence no.102489 - Ravens - Science and Research - Strathbraan.msg
Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence issued - Boundary Map - 4 April 2018.pdf

Folks

Attached is the licence and accompanying map showing the licence area. The licence was formally issued to [REDACTED] earlier today.

Please make sure that you understand exactly what everyone's responsibilities are and that those other authorised under the licence subsequently understand what they can and can't do. [REDACTED] – this is really important for you as the licence holder.

[REDACTED] estate had been in touch with me to say that they agreed to participate on the basis that they have their 'fair share' of the overall bag limit. On the basis of the proportion of the whole study area covered by the estate (about 2850Ha of c29000Ha total), as a proportion of the overall bag limit of 69 birds this equates to 7 birds. I have said that this seems reasonable but that there has to be close liaison between all shooters and the licence holder. I'll say no more on this because it will be down to you [REDACTED] to co-ordinate and ensure that this is factored in and ultimately that the bag limit is not breached.

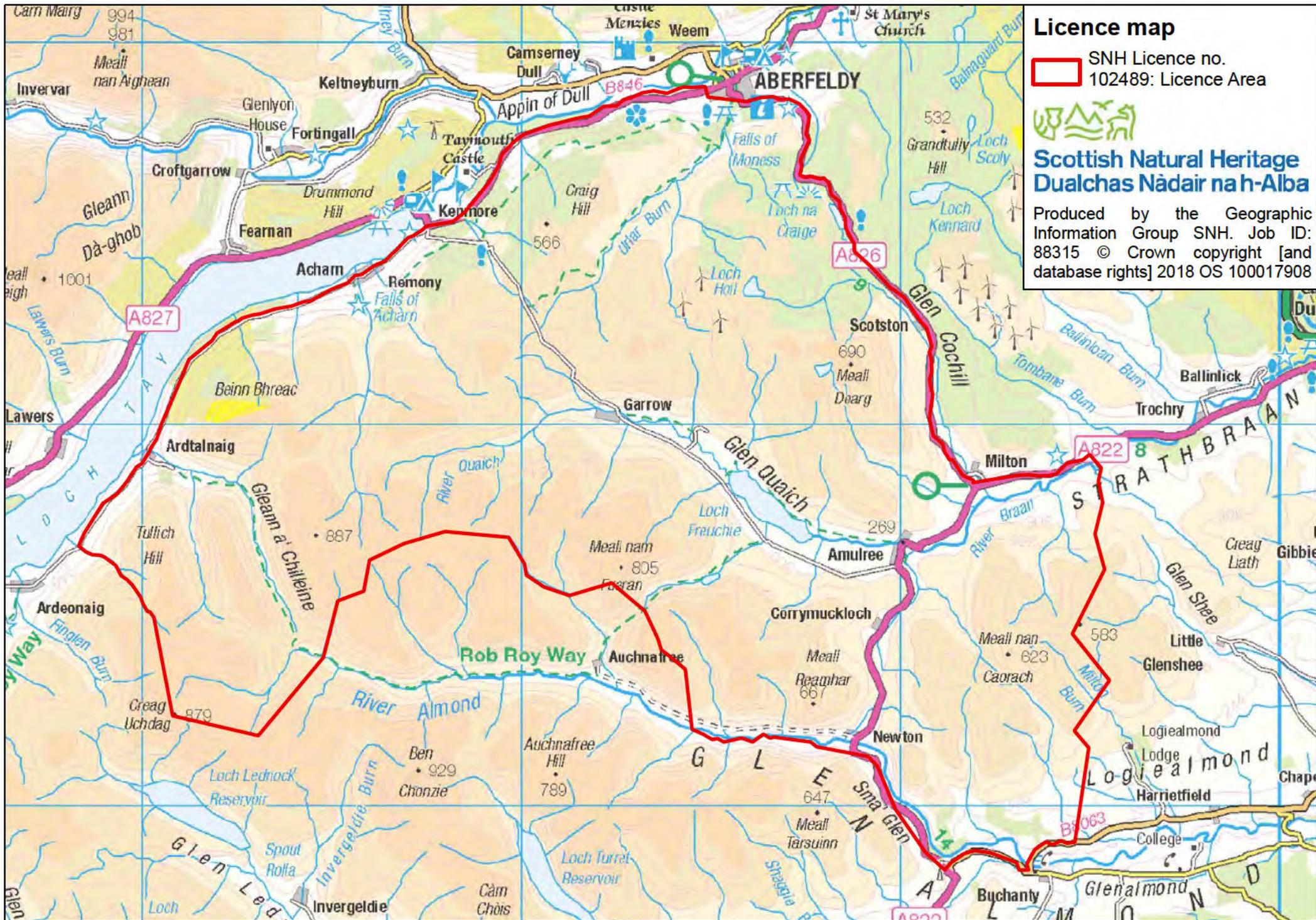
I have not passed copies of the licence on to anyone else but suggest that they must go to all of the controllers and, given that there is clear cross-reference to application itself I would suggest that you also provide them with the application too.

You will note that I have just issued the licence for this year. I'll be happy to renew it simply for next year (and for the proposed overall duration) providing that all goes well. At this point, assuming that the additional appropriate monitoring has been carried out on those other sites within the original boundary the boundary could be increased to the originally intended extent. I'd suggest that we could meet up at the back end of the year to review progress, and possibly I'll see if any of the team can come down in the interim to see how it is going.

All the best

[REDACTED]

[REDACTED] has sent you copies of the following 2 documents from Objective:
"Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence issued - 4 April 2018" (A2582479) v0.1
"Strathbraan Community Collaboration for Waders - Ravens - Conservation - Licence 102489 - Licence issued - Boundary Map - 4 April 2018" (A2583502) v0.1



Licence map

 SNH Licence no.
 102489: Licence Area



Scottish Natural Heritage Dualchas Nàdair na h-Alba

Produced by the Geographic Information Group SNH. Job ID: 88315 © Crown copyright [and database rights] 2018 OS 100017908

From: LICENSING@snh.gov.uk
To: [REDACTED]
Cc: [LICENSING](#)
Subject: Licence no.102489 - Ravens - Science and Research - Strathbraan
Date: 04 April 2018 10:24:08
Attachments: Licence - 102489.pdf

Dear [REDACTED]

I attach a copy of your licence for the Strathbraan Wader project. Please make sure that you understand the terms and conditions of the licence and that everyone operating under it does also.

I will send the map separately in due course.

Kind regards

[REDACTED]



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Scottish Natural Heritage
Species Licensing
Great Glen House
Leachkin Road
Inverness
IV3 8NW
01463 725364
e-mail: licensing@snh.gov.uk

Bird Licence		
Licence Number: 102489	Valid from :04-APR-18	Valid to :31-DEC-18
Licence Holder : [REDACTED]		
Address:	[REDACTED]	
Additional Persons		
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
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[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]
Name	Role	Additional Conditions
[REDACTED]	Agent	[REDACTED]

This Licence is Granted under the following Legislation:

Wildlife and Countryside Act 1981 (as amended): Section 16 (1) (a)

Project Details

This licence permits the control of up to 69 ravens by those persons listed as agents and as part of the Strathbraan Community Collaboration for Waders project in the area shown on the attached map. The project is for the purpose of science, research or education in order to investigate the potential impacts of raven control on wader productivity. All works must be carried out in accordance with the licence application and subsequent correspondence agreed in writing between SNH Licensing Team and the licence holder, but subject to modifications or amendments imposed by the conditions of this licence.

Activities, species and locations covered by this licence are listed in Annex 1

Conditions

1	All activities must be carried out in accordance with those set out in the licence application and supporting document(s) and any subsequent correspondence agreed in writing with the SNH Licensing Team, but subject to any modifications or amendments imposed by this licence.
2	While engaged in work authorised by this licence, the licence holder and agents must each be able to produce a copy of this licence to any Police Officer, authorised person, or official of SNH on demand.
3	Multi-catch cage-traps may be used to trap ravens under this licence. Traps must be used in accordance with the methods and conditions required by SNH General Licence 01/2018.
4	Ravens can only be shot from groups of three or more birds, and not within 500m of known nest sites. Ravens may not be shot at roost sites.

5	All persons shooting or trapping ravens under this licence must report the number of birds they have killed and by what means to the licence-holder on at least a weekly basis. It is the responsibility of the licence-holder to ensure that the bag limit of this licence is not breached.
6	This licence permits the use of sound recordings as a lure and of semi-automatic weapons but does not permit the use of any other firearm prohibited by section 5 of the Wildlife and Countryside Act 1981 (see note 8).
7	Some shot birds may be found to bear leg-rings or other unique marks. Details of any such markings and the date and place of shooting must be reported to the British Trust for Ornithology. Instructions for doing this may be found at Click Here
8	Monitoring must be carried out in accordance with the methods in the licence application and supporting information. This includes; annual coordinated non-breeding raven counts, raven breeding pair estimates (nest counts), counts from a minimum of 8 sets of wader transects and 6 Vantage Point counts for waders.
9	No later than one month after the date on which this licence expires, the licence holder must provide SNH Licensing Team with a licence return, detailing all actions carried out under this licence. The return must include details of numbers of ravens controlled and method of control used as well as the wader and raven monitoring results.
Notes	
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2	Agents may work independently of the licence holder. It is the responsibility of the licence holder to ensure that agents have the appropriate training and experience and that they understand the terms and conditions of this licence.
4	Nothing in this licence shall confer any right of entry on to land or property.
5	This licence may be modified or revoked at any time by SNH.
6	This licence only exempts any legal provision contained in the Wildlife and Countryside Act 1981 (as amended).
7	'Multi-catch cage-trap' means a trap defined as such in SNH General Licences 1-3 2018.
8	Methods of killing prohibited under section 5 of the Wildlife and Countryside Act 1981 include; automatic weapons and shot-guns with a barrel that has an internal diameter at the muzzle of more than one and three-quarter inches.

This licence is granted subject to compliance with the terms and conditions specified

Licence no:102489

Authorised on behalf of Scottish Natural Heritage by [REDACTED] Date: 04-APR-2018

Licence no:102489

Annex 1: Permitted activities

Action	Purpose	Species	Location	Grid Reference	Method
Kill and take	Science, Research and Education	Raven	Within the area shown on the Map entitled 'SNH Licence no. 102489: Licence Area'	-	Multi-catch cage trap

Action	Purpose	Species	Location	Grid Reference	Method
Kill	Science, Research and Education	Raven	Within the area shown on the Map entitled 'SNH Licence no. 102489: Licence Area'	-	Shooting

This licence is granted subject to compliance with the terms and conditions specified

Licence no:102489

Authorised on behalf of Scottish Natural Heritage by: [REDACTED] Date: 04-APR-2018

From: [REDACTED]
To: [REDACTED]
Subject: RE: Information Request - [REDACTED], RSPB - Raven Licence Application - Redacted Information (A2574441)
Date: 24 April 2018 12:02:00

[REDACTED]

Just to reassure you that I have not lost sight of this – just trying to fit request in with all of the other correspondence on the issue.

[REDACTED]

From: [REDACTED]@rspb.org.uk]
Sent: 20 April 2018 17:02
To: [REDACTED]
Subject: RE: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

Hi [REDACTED]
Understand licence is now issued. Is it possible to see a copy and conditions?
Thanks
[REDACTED]

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From: [REDACTED]
Sent: Wednesday, April 18, 2018 3:33:40 PM
To: [REDACTED]
Subject: RE: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

Thanks, [REDACTED]

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From: [REDACTED]
Sent: Wednesday, April 18, 2018 11:55:11 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

Hi [REDACTED]
It does not contain the actual licence as issued by SNH, just the application. There are also 4 supporting documents referred to in the email which are not supplied (other than Appendices 1-6, which are included). The only apparent redaction is the name of the applicant (other than the missing documents above, if that is redaction).

Cheers
[REDACTED]

From: [REDACTED]
Sent: 18 April 2018 10:04
To: [REDACTED] <[REDACTED]@rspb.org.uk>
Cc: [REDACTED] <[REDACTED]@rspb.org.uk>; [REDACTED] <[REDACTED]@rspb.org.uk>; [REDACTED] <[REDACTED]@rspb.org.uk>; [REDACTED] <[REDACTED]@rspb.org.uk>
Subject: Re: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

I didn't get time to look at the stuff from SNH properly but I'm assuming it doesn't include a copy of the actual licence (which I also asked for). Would somebody mind checking and ping back to me and I'll remind [REDACTED] to send. Ta. (On a bus right now and not PDF files not loading properly on my phone.)

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From: [REDACTED]
Sent: Wednesday, April 18, 2018 7:06:23 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

Well, where to start....

I've just bumped into a [REDACTED] carrying out wader surveys near [REDACTED] so these are happening.

Sent from my iPhone

On 17 Apr 2018, at 09:34, [REDACTED] <[REDACTED]@rspb.org.uk> wrote:

OK, here's the Strathbraan raven licence application - with redactions, just in from [REDACTED] a few moments ago.
Not looked at it yet or shared externally.

-----Original Message-----

From: [REDACTED] <[REDACTED]@snh.gov.uk>
Sent: 17 April 2018 09:10
To: [REDACTED] <[REDACTED]@rspb.org.uk>
Subject: Information Request - [REDACTED] RSPB - Raven Licence Application - Redacted Information (A2574441)

Hi [REDACTED]

Apologies for the delay - I attach the application made for Strathbraan.

All the best

[REDACTED]

██████████ has sent you a copy of "Information Request - ██████████ RSPB - Raven Licence Application - Redacted Information" (A2574441) v2.0 from Objective.

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Tha am post-dealain seo agus fiosrachadh sam bith na chois dìomhair agus airson an neach no buidheann ainmichte a-mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsear-siostaim no neach-sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH.

<Information Request - ██████████ RSPB - Raven Licence Application - Redacted Information.pdf>

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From: [REDACTED]@bto.org]
Sent: 25 April 2018 14:20
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Raven issues

[REDACTED]

Thanks both for your replies. I am tied up again today but could manage a quick call tomorrow morning with either or both of you if important. I am very sorry that I am struggling for time this week - still knock on from the office move.

[REDACTED]

On 24 April 2018 at 14:06, [REDACTED]@snh.gov.uk> wrote:
Hi [REDACTED]

I'm in a telecon and then meeting between 2:30 and about 4 this afternoon, otherwise contactable – it would be good to chat about this.

That said, I think that we need to be clear that the raven report (and therefore SRMS data) has not been used as a tool against which this licence application was assessed. The licence is one project, proposing c70 birds a year to be controlled in one relatively large area. This corresponds to a less than 10% increase in the overall numbers permitted to be controlled under licence each year and I think even without the report we would be relatively comfortable in relation to the impacts.

The report has however been a useful reference point to sense check the potential impact of the proposal, and it would seem rather illogical not to refer to it in this respect.

[REDACTED]

From: [REDACTED]@bto.org]
Sent: 24 April 2018 13:23
To: [REDACTED]
Subject: Raven issues

Hi both,

You will be aware of the social media on the Strathbraan licence and, probably, the response of the SRSG re use (or "misuse") of SRMS data. Apparently [REDACTED] is advising SRSG that this means they should consider pulling out of the SRMS (although I have only heard this second hand). [REDACTED] is getting a lot of questions and is caught in the middle of all of this, wearing his [REDACTED] and [REDACTED] hats.

I am caught up with a training day all day today and tomorrow morning but could do with discussing this with one or both of you with regard to anything I can do to help to minimise damage to the SRSM.

It may be prudent to e.g. give [REDACTED] sight of the report, so that he can 'defend' the evidence base and use of SRMS data to some extent if he is willing to do so and SNH could allow this?

Could you let me know if you are available for a call this afternoon or tomorrow morning and I will do my best to call you, or [REDACTED] might also be able to help.

Thanks and best wishes, [REDACTED]

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[REDACTED]
[REDACTED]

BTO Scotland

Beta Centre (Unit 15)
Stirling University Innovation Park
Stirling. FK9 4NF.

Phone numbers to follow.

Tele:

Website: www.bto.org

Charity No 216652 (England and Wales) SC039193 (Scotland)

Company Limited by Guarantee No 357284 (England and Wales)

Registered Office The Nunnery, Thetford, Norfolk IP24 2PU

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Tha am post-dealain seo agus fiosrachadh sam bith na chois dìomhair agus airson an neach no buidheann ainmichte a-mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsear-siostaim no neach-sgrìobhaidh.

Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-

mach bho SNH.

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[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

27 April 2018

Dear [REDACTED]

SCCW-WCL Licence 102489

I have noted the recent interest in the decision of SNH (Licensing) to grant the licence (102489) for: “... the purpose of science, research or education in order to investigate the potential impacts of raven control on wader productivity.”

I understand that a process of review is underway internally at SNH ⁽¹⁾. I offer the following notes on GWCT’s view of the licence, and our support for this licensed approach to driving data gathering, management and assessing the subsequent conservation status of waders.

1. GWCT advised the Strathbraan Community group on the content of the application, being engaged in this process from early 2017.
2. This community’s interest has been both long-standing (raven predation on wading birds and sheep has been noted for many years in this area where predation pressure by foxes, other corvids and mustelids is extensively reduced for sporting, conservation and farming purposes, and where habitat quality for wading birds is favourable) and reflective of the ‘Understanding Predation’ ⁽²⁾ report to SNH in 2016.
3. Understanding Predation: This study identified a high degree of concern from local practitioners across Scotland about predation pressure on the breeding success of declining, yet nationally important populations of wading birds, and about the impact and lack of quantification or assessment of predation pressure from currently protected predators.
4. The available science on raven and wader interactions ⁽³⁾ indicated ‘a near-significant link’ between declining curlew and lapwing status and raven presence. However this report appears to many contemporary practitioners to underestimate the issue, based as it was on data from 1980-2002. Since this period, both raven abundance and range have increased and wading bird numbers and range declined ⁽⁴⁾.
5. Understanding Predation identified the need for further data on these interactions, and ‘Working for Waders’ ⁽⁵⁾ ratified the value of doing so. However predator removal studies to describe the role of predation in limiting wading bird status ⁽⁶⁾ have been undertaken using the ‘General Licence’ and vermin control regulations. Gathering data on other species predation pressure on wading birds by predator removal, including the nature of impacts of ravens, cannot be done without a special licence.

6. The long-term interest of this land-management-based community in collaborating on the issue made it a useful place to begin a discussion about what data would be needed to add value to this discussion. Local knowledge and surveys by BTO ⁽⁴⁾ and other bodies have also identified this landscape as containing a wide diversity of wader species, with variable abundance and productivity. As such the area appeared to be an 'area of wading bird conservation value'
7. We advised the local community that a study gathering data that could be used to inform both local and wider interest in raven predation on wading birds could be seen as a form of 'Before-After Control-Impact' (BACI) design ⁽⁷⁾. Such a study can have the following attributes, based on our experience in monitoring various studies ⁽⁸⁾:
 - It does not have to be a more complicated replicated or controlled experiment to gather informative data.
 - It should have a baseline year of data gathering when no manipulation of ravens is undertaken.
 - It should have control counts of waders in an area located outside the one where any manipulation is undertaken.
 - It should gather relevant, repeatable, systematic data on raven abundance, wader abundance and wader productivity, using recognised techniques.
8. The local community accepted these points and identified that a BACI-type management trial was a process of education as well as information gathering.
9. In support of gathering such relevant data, the approach was agreed:
 - To stimulate the local community to minimise negative land management impacts on wading birds as possible.
 - 8 sporting estates and associated tenant farms were engaged in discussions in early 2017 about sensitive grass park management across 50,000ha.
 - To stimulate practitioners to gather, in a repeatable manner, data relevant to raven predation on wading birds, notably raven population indices and wader abundance and productivity data.
 - This undertaking was given by 12 sites in 2017.
 - Counts are based on the widely used paired-transect (total 2000-m length) approach, counting wader abundance and behaviour in critical periods on fixed transects between April and June.
 - Similar counts have been used in a number of studies ^(7,8) and are a standard count method in the East Cairngorm Moorland Partnership area and on many Scottish grouse moors.
 - Vantage point counts were used for detailed assessment of wading bird chick production.
 - Training was provided to potential participants in group sessions in Spring 2017 (1 estate not present at this training was already undertaking wader counts), and in the field on 4 sites, and in Spring 2018 (Appendix I).
 - To establish a baseline of these data:
 - 11 raven vantage point counts were undertaken and 9 properties identified 18 breeding sites in 2017.
 - Wader abundance was assessed on 7 sites and productivity on 10 sites in 2017.
 - To repeat raven and wader data gathering in the area:
 - A reduced area (29,000 ha as opposed to 50,000 ha) was licensed than was originally envisaged, so counts of raven breeding sites and wader abundance are underway on 6-8 sites in the licence area, and 3 more in the surrounding unlicensed area, acting as the control.
 - To gather data (numbers taken) on the effectiveness of trapping and shooting as non-breeding raven control methods in relation to raven abundance.
 - These data are part of the licence requirement, though no ravens have been taken.

10. GWCT, as did Understanding Predation and Working for Waders, believe that there is merit in:
 - Stimulating local communities to record wading bird abundance and productivity in standardised fashion, building on their local knowledge, and to make these data available through mechanisms such as Working for Waders.
 - Assessing predator abundance so that their conservation needs can be ensured.
 - Assessing cull methods to ensure that culling is targeted at non-breeding birds and is efficient.
 - Evaluating whether a predator cull can have measurable benefits in terms of wader conservation.
11. The systematic, controlled and baselined data collection used here is as robust an approach as is reasonable for a collaborative study with a strong focus on practitioner knowledge.
12. The project and licence structure conforms to a BACI design, so is scientifically sound. The approach is flexible, providing for adaptation of cull number, area and breeding status (to the extent this can be targeted) following the outcome of each year. GWCT expects to be engaged with the licence holder and SNH in discussions in the autumn of each year to assess:
 - the rigour of the systematic counts
 - the results of the counts
 - any emerging relationship between counts and cull numbers.

We believe that this licence can enable these aims to be delivered, at no risk to raven conservation status, which will be better monitored than it is now. We believe there will be a net increase in our knowledge of wading bird conservation status and performance in this part of Scotland, in relation to raven predation as a pressure on wader survival and recruitment.

Yours



[Redacted]

[Redacted] Game & Wildlife Conservation Trust

References:

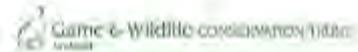
- (1) www.snhpresscentre.com/news/snh-statement-on-strathbraan-licence
- (2) Understanding Predation: www.moorlandforum.org.uk/project-work/understanding-predation
- (3) Amar et al. (2010) Spatial and temporal associations between recovering populations of common raven *Corvus corax* and British upland wader populations. *J. App. Ecol.* 2010, 47, 253–262
- (4) BTO Bird Atlas: www.bto.org/volunteer-surveys/birdatlas/results.
- (5) Working for Waders: <http://workingforwaders.blogspot.co.uk>
- (6) Fletcher et al (2010) Changes in breeding success and abundance of ground-nesting moorland birds in relation to the experimental deployment of legal predator control. *J. App. Ecol.* 47: 263-272
- (7) Smith E.P. (2002) BACI Design. *Encyclopaedia of Environmetrics*. Eds (Abdel H. El-Shaarawi and Walter W. Piegorsch) John Wiley & Sons, Ltd, Chichester.
- (8) www.gwct.org.uk/media/477728/fieldsfuture.pdf; www.gwct.org.uk/auchnerran

Appendix I:

Summary of training material showing monitoring approach

Operation

- Monitoring – counts of ravens and waders **MUST** be undertaken
- Culling
 - Multi-cage traps, sound recording, semi-auto shotguns, rifles **CAN** be used.
 - Ravens **CAN ONLY** be shot from groups of 3 or more, over 500m from a raven nest, and **MUST NOT** be shot at roost.
 - Reporting: All operators **MUST** report to Caitlin weekly their cull achieved and Caitlin is responsible for ensuring no more than 69 ravens are culled
 - There is no ‘sharing’ structure placed on operators for the 69 birds – how the group operate this is up to you.



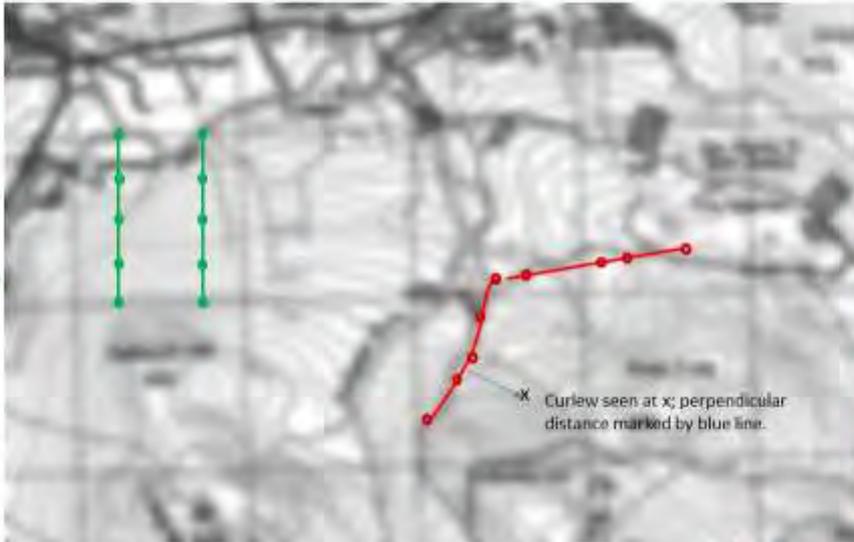
Monitoring: Land manager input needed in 2018

1. How many waders – 8+ paired transect sites
2. What wader breeding success – 6+ vantage point counts
3. How many ravens are there (sub adult and breeding)
4. How many ravens are taken and when
5. Any predation losses of waders to ravens

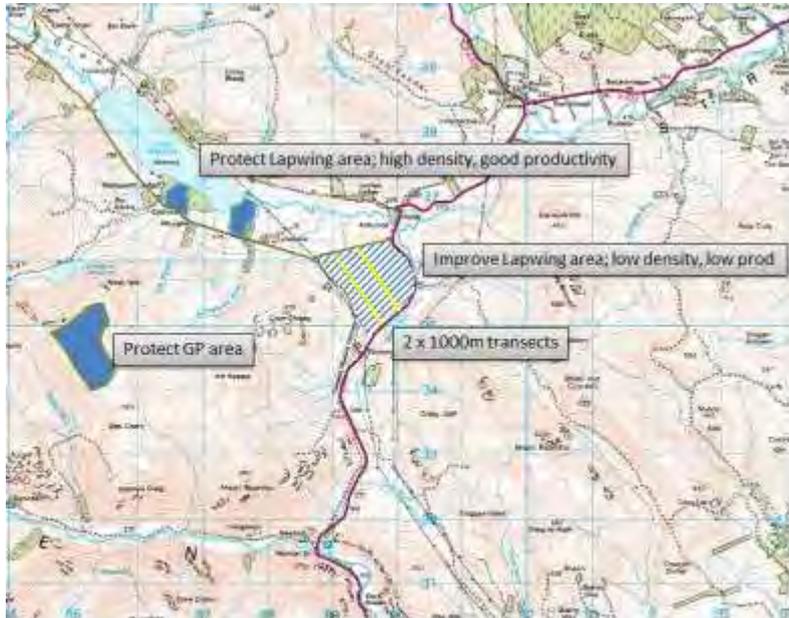
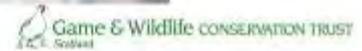


Wader Counts: 2 ways of laying out a modified BBS style transect count

Paired transects, N to S, 1000m long and 500m apart, aligned with a grid square. Note regular stopping points on open ground.



2 transects, each 1000m long with ~200m of wader habitat on each side. Note stopping points fit where easy and hard to see.



Example data issues

1. Waders
 - Fields, not beats or estates
 - Areas may be classified as Protect (eg good) or Improve (eg could do better)
 - Try to stop fields being rolled or cut at inappropriate times.
 - Transects and fledging vantage counts – as many places as time and resources permit.
2. Ravens
 - Show VPs
 - Show area counted
 - Show any areas where predation observed
 - Location breeding RN pairs is important for next stage of adaptation.



