

Step-by-Step Guide

Appropriate Assessment (AA) of Impacts of Wildfowling



Appropriate Assessment stage for deciding the impacts of wildfowling on designated sites under the Habitat Regulation Assessments (HRA)

Prior to starting: check the results of the assessment of “Likely Significant Effects” (LSE)

Where the likely significant effects have been identified ‘**alone**’ each of the qualifying features should be taken through steps 1-5 with the assessment undertaken **alone**. Any residual effects might *subsequently* need to be considered in combination.

Where the likely significant effects have been identified ‘**in combination**’, each of the qualifying features should be taken through steps 1-5 with the assessment undertaken **in-combination** only.

Table A1.1 in Appendix 1 should be filled in to summarise the decisions made and provide an audit trail.

Step by step approach to Appropriate Assessment (AA) decisions

1. Is the species a legal quarry species*?

YES – follow steps **2 and 3** (as quarry species can be impacted by both direct mortality and disturbance)

NO – go to step **3**

* For a list of the legal waterbird quarry species in England, see the table of Waterfowl Species which can be shot in England, Wales & Scotland at: <https://basc.org.uk/game-and-gamekeeping/quarry-species-shooting-seasons/>

2. **Direct Mortality:** Does the number of individuals to be removed equate to in excess of 1% of the rate of natural mortality* of the population of the site under consideration. For example, an increase in annual mortality of the population of individuals using a site from 10% to more than 10.1%, or from 12% to more than 12.12% (both examples showing a 1% increase in natural mortality).

YES – further site-specific consideration required, go to step **2A**

NO – **No Adverse Effects On Integrity of Site (AEOI)** (from direct mortality), go to step **3**

*The consideration of 1% above baseline mortality comes from ORNIS guidance on small numbers, see paragraphs 3.5.30-3.5.36 of:

http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/hunting_guide_en.pdf

Baseline mortality rates can be calculated from the survival rates in published literature, e.g. those in BTO Birds Facts, available from: <https://www.bto.org/about-birds/birdfacts>

2A. Site-specific approach should be taken. Once a conclusion has been reached regarding direct mortality impact, impact from disturbance impacts should be considered, so go to step **3**.

Note: As these issues are site and species specific, it is not possible to make specific general conclusions as to when AEOI should be concluded or ruled out with regard to direct mortality and this will require expert judgement to be made on a case-by-case basis. The following factors could be considered as a starting point for consideration:

- i. Comparison of the proposal in terms of the number of birds shot of the species in question against the ‘national/benchmark’ rate – see Appendix 2 for information on these rates.

- ii. Does the number of birds removed by the proposal of the species in question exceed this 'national/benchmark' rate? – concerns would be raised if the club's removal of the site population exceeds these.
- iii. Consider the site population trend for the species in question – is it increasing/stable/decreasing? - where the site species population trend is decreasing, it is unlikely we would consent to a removal of birds exceeding the national rate, unless there was a reasonable justification, for example positive actions or conservation measures underway or secured on the site.

3. Disturbance: Does the affected site/sector/area hold 1% or more of the SPA population of the species (based on the most recent 5 year mean peak for the site)?

YES – go to step 4

NO – got to step 3A

3A. Site/sector/area hold less than 1% of the Special Protected Area (SPA) population: Is the species in question one with populations occurring in low numbers (e.g. non-breeding bittern or hen harrier)?

YES – go to step 4

NO – **No AEOI** (from disturbance)*

*If a conclusion of no adverse effect on integrity 'alone' can be ascertained either with or without additional mitigation, any **residual effects** from the project (those which still remain but which are not 'significant' alone) will need to be considered 'in combination' with other plans and projects.

4. Site-specific factors need to be taken into account.

Note: As these issues are very site and species specific and there are so many variables to consider, it is not possible to make specific general conclusions as to when AEOI should be concluded or ruled out and this will require expert judgement to be made on a case-by-case basis.

The aspects listed below are not exhaustive, but represent the types of locally derived information that would aid assessments:

- Can site-based changes be entirely dismissed as factors affecting bird numbers? Consider:
 - i. Changes to habitat extent and quality within a given sector/site that might influence bird abundance/distribution – assessments should consider the timescale over which this has occurred in relation to the population trends and whether this is due to changes in management and/or natural change.
 - ii. If the site-based changes cannot be dismissed and the site trends for a species are declining, then can this at least partly be attributed to climate change, e.g. 'short-stopping'? For example, it is accepted and documented in peer-reviewed literature that some wintering waders and geese are undergoing northerly and/or easterly range shifts to their wintering areas (Maclean *et al.* 2007, available from: https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/2007/rr486.pdf).

Other resources available to guide these considerations include:

- State of the UK's Birds (updated every year, current report available from: <https://www.bto.org/file/341352/download?token=6R-yR0H>);
- Waterbirds in the UK (WeBS annual reports, updated every year and available online at: <https://www.bto.org/volunteer-surveys/webs/publications/webs-annual-report>);
- WeBS Alerts reports (available online at: <https://www.bto.org/volunteer-surveys/webs/publications/webs-alerts>).

- Other site-specific factors to consider include:
 - i. Timing of wildfowling visits and species use of the area (e.g. locations of important high tide roosts/low tide feeding areas for the species considered) – are high tide roosts/low tide feeding areas located near to the wildfowling location(s)? Will wildfowling be present at the same time as the species in question? – e.g. is a key roost for a species located close to a wildfowling location and could therefore be at risk of disturbance and will the birds be present at the same time/tide state as the wildfowling? If not, then any impact is likely to be minimal/negligible); if they are, these might require specific safeguards through mitigation considerations.
 - ii. Presence, location and value of suitable refuges or no-shooting areas within the proposal area and the SPA as a whole:
 - Refuges might be quite poor if frequently disturbed by other users or vulnerable to predators (i.e. next to scrub/trees), or if not available at certain tide states.
 - The sufficiency of no shooting areas will depend on their frequency, duration, timing etc.
 - iii. Are there any morphological, habitat or man-made features within the sector that might act as natural barriers or have a sheltering effect between the wildfowling and the areas most likely to be frequented by SPA bird populations? For example: creeks, flood defence banks, treelines, very remote mudflats, reedbeds or any other inaccessible areas not used/affected by wildfowling (and their dogs) but used by bird populations.
 - iv. Access routes to the areas where wildfowling is most likely to be undertaken (recognising that some wildfowling wish to keep specific locations confidential) and whether on foot and/or motorised access, including boats.
 - v. Will the majority of the wildfowling activity be likely to be shore-based or from boats/other vehicles (recognising that some wildfowling wish to keep specific locations confidential).

Once site-specific factors have been considered and if it is not possible to conclude no adverse effect, go to step 5.

- 5.** Look at restrictions and/or conditions which could be applied to the consent to enable a conclusion of no adverse effect to be reached, (e.g. reduction in days/visits, provision of additional refuges, restrictions around roosts etc.).

If this can be done a consent with the necessary conditions can be provided.

In some cases this may not be possible and consent would need to be refused.

Appendix 1

Table A1.1 Table summarising Appropriate Assessment (AA) decisions (qualifying features should be updated to reflect those for the site assessed)

| Site: | | | | | |
|------------------------------|--|--------------------------------------|---|--------------------|-----------------------------|
| Qualifying feature | Likely Significant Effect (LSE) (Y/N) | Quarry species (Y/N) | Appropriate Assessment (AA) conclusion | | Notes/comments |
| | | | Direct Mortality | Disturbance | |
| Bewick's swan | N | N | N/A | N/A | |
| European white-fronted goose | y | Y | Adverse Effects On Integrity of Site (AEOI)/no AEOI | AEOI/no AEOI | Explanation for conclusions |
| Shelduck | N | N | N/A | N/A | Explanation for conclusions |
| Gadwall | Y | Y | AEOI/no AEOI | AEOI/no AEOI | |
| Dunlin | Y | N | N/A | AEOI/no AEOI | Explanation for conclusion |
| Redshank | Y | N | N/A | AEOI/no AEOI | Explanation for conclusion |
| Waterbird assemblage | Y | Y (quarry species within assemblage) | AEOI/no AEOI | AEOI/no AEOI | Explanation for conclusions |
| | | | | | |

Appendix 2: National/benchmark rates

A method for calculating a 'national/benchmark rate' of removal:

1. BASC supplies NE with bag return data for wildfowling on the Crown Estate foreshore in the UK. From this we know the total numbers of birds (per species) taken from the Crown Estate foreshore in the UK, per year and a five year mean value (most recent data we have is for 2007/08-2011/12). This can then be used to calculate the proportion of total bag each species contributes (i.e. % of total number of birds shot over the 5 year period considered). We also have information on the total number of wildfowlers using that same land (see Table A2.1).

Table A2.1. Summary of bag return data from year 2009-10 to 2011-12 (Canada goose and woodcock are not included, as no SPAs are designated for these species. Coot not listed as no birds were shot)

| Species | No. birds shot, five year mean value (2007-08 to 2011-12) | Proportion of total bag (i.e. % of 6,479 birds) |
|---|---|---|
| Common snipe | 78 | 1.2 |
| Gadwall | 93 | 1.4 |
| Goldeneye | 7 | 0.1 |
| Golden plover | 26 | 0.4 |
| Greylag goose | 184 | 2.8 |
| Mallard | 1,264 | 19.5 |
| Pink-footed goose | 7 | 0.1 |
| Pintail | 190 | 2.9 |
| Pochard | 9 | 0.1 |
| Shoveler | 36 | 0.6 |
| Teal | 1,934 | 29.8 |
| Tufted duck | 17 | 0.3 |
| White-fronted goose | 2 | 0.04 |
| Wigeon | 2,045 | 31.6 |
| Total no. birds shot | 6,479 | |
| Total no. wildfowlers (5 yr mean 09-10 to 11-12) | 890 | |

2. Using an estimate of the total number of wildfowlers in the UK, extrapolate the data above to get an estimate of the total number of birds taken per year from active wildfowlers in the UK. For example:
 Estimate of total number of wildfowlers in the UK = 10,000 individuals*
 10,000 individuals will remove $(6479/890) \times 10,000 = 72,798$ total birds
 *Note: Alternative scenarios for estimates of numbers of UK wildfowlers can be tested
3. Use the proportion data in Table A2.1 above to calculate the number of each species within the total number of birds calculated in step 2. For example:
 Of the 72,798 birds calculated in step 2, 19.5% of these will be mallard, which equals:
 $(19.3 / 100) * 72,798 = 14,196$
4. From the number of birds of each species that make up the total number, calculate what proportion of the UK population of this species this equates to, which gives the 'national/benchmark rate'.
 For example, for mallard:
 UK population = 710,000 birds*

So, 14,196 birds represents 2% of the UK population ($= (14,196 / 710,000) * 100$)

*From Musgrove *et al.* (2013), available from: <https://www.britishbirds.co.uk/wp-content/uploads/2010/12/APEP3.pdf>

Suggested national/benchmark rates for the legal quarry species in England (calculated by the proposed method above) are listed in Table A2.2 below:

Table A2.2 Suggested national/benchmark rates for the legal quarry species in England (Canada goose and woodcock are not included, as no SPAs are designated for these species. Coot not listed as no birds were shot)

| Species | UK population* | STEP 1 | STEP 2 & 3 | STEP 4 |
|--------------------------------|----------------|---|---|---|
| | | Proportion of total bag (%) (i.e. % of 6,479 birds) – from Table A2.1 | Number within total bag: = (% of total bag/100)*18,199 | % National population = <u>'national / benchmark' rate:</u> = (no. within total bag/national population) * 100 |
| Common snipe | 1,100,000 | 1.2 | 874 | 0.08 |
| Gadwall | 25,000 | 1.4 | 1,019 | 4.08 |
| Goldeneye | 27,000 | 0.1 | 73 | 0.27 |
| Golden plover | 42,000 | 0.4 | 291 | 0.07 |
| Greylag goose (Icelandic) | 88,000 | 2.8 | 2,038 | 2.32 |
| Mallard | 710,000 | 19.5 | 14,196 | 2.00 |
| Pink-footed goose (Icelandic) | 360,000 | 0.1 | 73 | 0.02 |
| Pintail | 29,000 | 2.9 | 2,111 | 7.28 |
| Pochard | 48,000 | 0.1 | 73 | 0.15 |
| Shoveler | 18,000 | 0.6 | 437 | 2.43 |
| Teal | 220,000 | 29.8 | 21,694 | 9.86 |
| Tufted duck | 120,000 | 0.3 | 218 | 0.18 |
| White-fronted goose (European) | 2,400 | 0.04 | 29 | 1.21 |
| Wigeon | 450,000 | 31.6 | 23,004 | 5.11 |

*From Musgrove *et al.* (2013). UK estimates are used to be consistent with BASC supplied data, although GB also available. Note that no published England non-breeding waterbird population estimates are available.