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City of Bradford Metropolitan District Council Core Strategy

Scientific and Technical Submissions relating to the Council's Habitat Regulations Assessment

By

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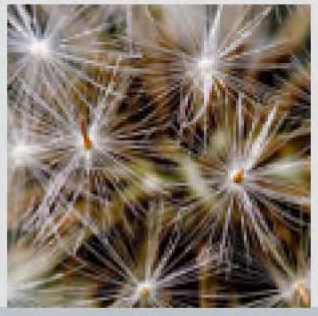

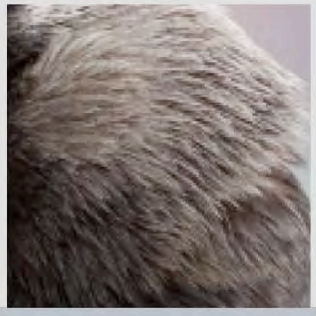

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Summary

This statement has been prepared by Andrew Baker of Baker Consultants Ltd. Andrew is an ecologist with 29 years' professional experience. He has had a long interest in moorland ecology stretching back to his undergraduate days when he studied under the peatland ecologist Dr J O Rieley.

On graduating with a degree in Botany from Nottingham University, he went to work for both English Nature (Peak District Team) and Peak District National Park and worked on many of the key moorland sites of the area. While at English Nature his main project was the designation of the Leek Moors as a Site of Special Scientific Interest, a moorland that is now part of the South Pennine Moors Special Protection Area. His work in the Peak District included working with landowners to establish agricultural management compatible with the ecological objectives for key sites. Andrew also has experience of lowland heaths (Dorset) and is very familiar with the management issues on these sites.

Andrew has an interest in nature conservation law and is an expert in the application of the Habitats Directive. He is a long-standing member of UK Environmental Law Association's Nature Conservation Working Group (and a former convenor of the group). He has written and commented on numerous Habitat Regulations Assessments both for plan and projects for many local authorities including HRAs for both lowland heaths and upland moors.

Baker Consultants Ltd has carried out a review of the Bradford Council's Appropriate Assessment of its Core Strategy (AA Dec 2014) with the purpose of assessing its scientific validity. The review also investigated the supporting data upon which the AA was based. Much of this data was unpublished and not available on the Council's website; and was only made available to Baker Consultants Ltd following an Access to Environmental Information request made to the Council.

The review has found the AA Dec 2014 to be fundamentally flawed. The main flaws in the document arise from the data that was used to inform the AA and the way in which that data was interpreted by the authors. Six key flaws have been identified as follows:

(i) The assessment has been made against the wrong list of species for which the SPA is designated. Three different citations exist for the South Pennine Moors SPA, however, it is clear that the latest citation from JNCC 2001 is definitive and should have been used.

(ii) The AA Dec 2014 was informed by a habitat survey which aimed to identify areas of land that were critical to supporting SPA birds outside the SPA boundary (so called 'functional habitat'). These habitat surveys were flawed in that they did not cover all the habitat outside the SPA that was available to SPA birds and therefore the loss of function habitat to housing development was exaggerated. Furthermore the basic premise that these areas of habitat are critical to supporting the SPA breeding bird assemblage is fundamentally flawed as there is no correlation between these habitats and the distribution of SPA-related bird species. The latter flaw was acknowledged by the authors of the AA Dec 2014 in supporting documentation, but not in the AA itself.

(iii) Breeding bird surveys used to inform the AA were wrongly interpreted. Only 26 of 3099 bird registrations recorded within surveys were found to be from within sites that may be allocated for housing as identified within the *Strategic Housing Land Availability Assessment* (SHLAA). Loss of functional habitat from housing does not therefore result in a likely significant effect upon the SPA. Furthermore some of the 26 records from SHLAA sites were of birds that were simply overflying the areas and neither breeding nor foraging within them.

(iv) Urban edge impacts and impacts arising from increased recreational pressures have also been exaggerated. The report relied on data that has been gathered from lowland heath sites in southern England that is not applicable to upland areas such as the South Pennine Moors. There is no scientific evidence to show that increased recreation has an effect upon the breeding success or populations of moorland bird species. There is a notable absence of any quantification

and assessment of such impacts nor a demonstration of a causal link between increased visitor numbers and impacts on the integrity of the SPA.

(v) The AA Dec 2014 did not apply the test set out in the Habitat Regulations correctly. No assessment was made in the AA Dec 2014 of whether the Core Strategy would have an adverse effect upon the integrity of the SPA.

(vi) The AA was further flawed in that it seeks to justify a reduction in housing numbers that were proposed on the back of an earlier 2013 draft of the AA that pre-dated the 2013 bird surveys. Rather than carrying out an entirely new assessment (against the original housing figures) the AA Dec 2014 reverse engineered its conclusions to supposedly support the proposed reduction in housing figures.

The AA Dec 2014 is therefore fatally flawed and cannot be accepted as an accurate, scientifically sound assessment of the Core Strategy's impacts upon the nearby European sites.

The HRA process has been wrongly applied and the resulting AA Dec 2014 is unsound.

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1. Introduction and Scope

1. This report concerns the “Habitats Regulations Assessment: Appropriate Assessment Report for the Publication Draft Document (February 2014)” dated December 2014 (“AA Dec 2014”), which has been submitted by the City of Bradford Metropolitan District Council (the Council) in support of its Draft Core Strategy.

2. The purpose of this report is to review the scientific approach and method that has been employed by the authors of the AA Dec 14 (Urban Edge Environmental Consulting). The approach that should be employed in carrying out a Habitats Regulations Assessment (HRA) is defined by the Habitats Directive, the Conservation of Habitats and Species Regulations 2010 ("the Habitats Regulations"). and accompanying guidance. This is set out in full in the Further Opinion of Stephen Tromans QC at Appendix C to these submissions. Whilst this report refers to the legislation and guidance, the legal soundness of the HRA has been specifically assessed by others (refs Freeths LLP and the Legal Opinion).

3. This report critically examines the efficacy of the approach detailed in the AA Dec 14, looking at what data was used to inform the AA and how it has been interpreted by the Council.

2. Background

4. The detailed history of the development of the Draft Core Strategy is set out in the submission by Freeths LLP in the main body of this submission. Baker Consultants Ltd has previously made submissions to the Council regarding earlier drafts of the Habitats Regulations Assessment (HRA)1 .We found serious errors in the methods employed and consequently the conclusions that have been drawn. While some of these errors were corrected in later drafts (including the AA Dec 14), there still remain fundamental flaws in the way that the AA has been completed and relied upon by the Council. The key errors are as follows:

[1] In this review the term HRA referrers to the stepwise process that is required by the Habitat Regulations in order to assess the potential impacts of a plan or project upon a European site. The term Appropriate Assessment refers to the formal document arising from the HRA process.

- Reverse engineering of the AA findings to justify restrictive policies and a reduction in housing targets, rather than considering whether those restrictive policies and reduced targets are in fact necessary and justified.

- Absence of any proper scientific assessment of whether proposed development under the Core Strategy in fact would or could risk an “adverse effect upon the integrity of the South Pennine Moors Special Protection Area (SPA)” by reference to the qualifying features of the SPA .

- Incorrect approach to assessing the impact of housing on “functional” habitat outside the SPA.

- Incorrect interpretation of ecological survey data (2013 Bird and Habitat Surveys).

5. The flaws identified relate solely to the South Pennine Moors SPA. In addition to the key flaws set out above, it is clear that the assessment has not been done against the correct list of species that are protected under the South Pennine Moors SPA designation. These questions are dealt with in the Further Opinion by Stephen Tromans QC at Appendix C, but their implications are also explored in this report.

3. Review of the evidence base

South Pennine Moors SPA Citation

6. Each SPA has been classified because the area meets selection criteria for the number of certain species of birds that it supports. In each case the species for which an SPA is designated are set out in the SPA citation. The criteria are split into two sections that reflect the structure of the Birds Directive (2009/147/EC). Article 4.1 qualifications refer to the populations of birds that are listed under Annex 1 of the Directive, which the site supports. Article 4.2 refers to species not listed on Annex 1 that are regularly occurring migratory species that need protection. The latter is often an assemblage of species rather than a single one.

7. The classification of the South Pennine Moors SPA has been an iterative process. There are currently three citations available dating from 1998, 1999 and 2001. The bird species which are included within these citations are summarised in Table 1.

Table 1 Summary of South Pennine Moors / South Pennine Moors Phase 2 citations

	1998 Signed by SoS[1]	**Standard Data Form (1999) [2]**	**2001 Review [3]**
Article 4.1	Merlin Golden Plover	Merlin Golden Plover Short-eared Owl	Merlin Golden Plover Short-eared Owl Peregrine
Article 4.2	Breeding birds assemblage of: Golden Plover Lapwing Dunlin Snipe Curlew Redshank Common Sandpiper Short-eared Owl Whinchat Wheatear Ring Ouzel Twite	Breeding bird assemblage of: Lapwing Dunlin Snipe Curlew Redshank Common Sandpiper Whinchat Wheatear Ring Ouzel Twite	Dunlin
Other species mentioned	Red Grouse		
1. Natural England website 2. JNCC website (pre 2001 review) 3 JNCC website (following 2001 review)			

8. Prior to 2001, the classification of SPAs was carried out on an *ad hoc* basis but was hampered by the lack of selection criteria. In the mid 1990s, Government requested the Joint Nature Conservation Committee (JNCC), which has overall responsibility for European sites, to carry out a review of SPAs. In 1999, JNCC published guidelines for the selection of SPAs (http://jncc.defra.gov.uk/page-1405) (Appendix 1), which, for the first time, established specific criteria for how SPAs should be selected. In 2001, JNCC then published a review of the SPA suite (Stroud *et al*., 2001) (http://jncc.defra.gov.uk/page-2970) (Appendix 2). The purpose of the review was to provide Government with "a definitive list of sites, identified against explicit selection guidelines" (Appendix 2 bullet point 4). It is from the JNCC 2001 review that the latest citation for the South Pennine Moors SPA originates. The review list was agreed by JNCC's committee in June 2001 (Appendix 3), submitted to DEFRA Ministers and subsequently submitted to the European Commission in October 2001 (see email from David Stroud, Appendix 7). JNCC regard this as the definitive citation - it is simply an administrative

matter that the JNCC 2001 citation is not being used by Natural England. (Dr David Stroud, pers. comm.).

9. An employee of Natural England (NE) has advised the authors of the AA Dec 2014 that the HRA for the Core Strategy should be made against the 1998 citation (AA Dec 2014 para 3.1.4). This is not supported by NE's website which, as reported in the AA Dec 2014 (para 3.1.5) simply states that NE should be contacted. However, in a further twist of complexity, NEs Conservation Objectives (Appendix 4) for the SPA refer to the qualifying features that are then listed at the end of the document. The list of qualifying features however does not reflect *any* of the citation documents.

10. These different available citations, recognised by the different agencies (JNCC and NE), are highly problematic as the definitive citation is critical to the HRA process. An HRA must be carried out against the qualifying interest features for which the European site is designated (ODPM Circular 06/2005 para 15). It must also be carried out in view of the site's Conservation Objectives (the Habitat Regulations, Regulation 61 (b)). In this case it is uncertain for which species the SPA is designated and the Conservation Objectives on NE's website do not marry up with any of the possible citations. The legal implications of this are explored in more detail in Stephen Tromans' Further Opinion at Appendix C.

11. It is clear that the JNCC 2001 review was intended by both JNCC and Government to be 'definitive' and the SPA list was made against defined selection criteria (Appendix 3 bullet point 4). The bird species listed in the JNCC citation of 2001 are there because the numbers present within the SPA meet the 1999 selection criteria (Appendix 1); Short-eared Owl and Peregrine Falcon were added to the list of those species protected under Article 4.1 of the Birds Directive (Directive 2009/147/EC). JNCC removed the "breeding bird assemblage' (see Table 1 above) from the Article 4.2 element of the citation because such an assemblage did not meet the 1999 selection guidelines. Dunlin was however retained as a reason for designation under Article 4.2 but as a single named species rather than being part of an "assemblage".

12. Removing the “breeding bird assemblage” from the SPA citation was undertaken by JNCC in its 2001 review in accordance with its defined selection criteria. Critically this means that the AA Dec 2014 should have excluded consideration of Lapwing, Snipe, Curlew, Redshank, Common Sandpiper, Whinchat, Wheatear, Ring Ouzel and Twite. Since the only species recorded by the Council in 2013 (as set out in the AA Dec 2014 Appendix III) within the SHLAA sites (outside the SPA boundary) were breeding bird assemblage species, i.e. Lapwing and Curlew, and none of the remaining five species listed in the JNCC 2001 citation were present, this has a major implication in determining the valid content and findings of the AA (see below).

13. It should be noted that to follow Natural England’s informal advice of using the 1998 citation would mean that Peregrine Falcon would be entirely unprotected under the SPA as this species is absent from the 1998 citation (both under article 4.1. and 4.2) and is not listed in the Conservation Objectives. This is clearly not consistent with the JNCC’s objective (and confirmed by Government), which was to protect this species. Furthermore the authors of the AA Dec 2014 have in any event gone against NE’s advice and included this species within their assessment (however flawed).

14. The fact that the AA Dec 2014 has used the incorrect citation is clearly unacceptable from a legal point of view, an issue which is explored by Stephen Tromans QC in Appendix C. From a scientific point of view it is clear that the JNCC 2001 citation should have primacy for the following reasons.

    1. The features listed in the 2001 citation meet the rigorous scientific selection guidelines (1999) whereas the earlier citations do not.

    2. JNCC is the body responsible for the identification and designation of European sites and its recommendations were accepted by Government Ministers (David Stroud pers. comm.; and see also NE’s website as reported in para 3.1.5 AA Dec 2014).

3. There is no argument from NE that the JNCC citation is incorrect (indeed English Nature (NE's predecessor) was a joint signatory to the 2001 review).

4. The NE documents clearly need to be updated as NE's Conservation Objectives (on its website) do not accurately reflect any citation. It would be a retrograde step to make the Conservation Objectives fit the old citation rather than the JNCC 2001 review.

5. Assessment of impacts of the Core Strategy should not be based on old data that has not been updated simply because of an administrative time-lag.

Review of the 2013 Survey data

15. In order to inform the HRA, the Council commissioned further ecological survey work that was carried out during 2013. This work comprised two aspects, (i) surveys of moorland fringe habitat and (ii) breeding bird surveys. The AA Dec 14 relied heavily on these surveys (para 5.2.4, 5.2.11 to 5.2.34). However the surveys were not published with the AA, nor were they made available on the Council's website. Baker Consultants Ltd only managed to obtain the details of these surveys following an Access to Environmental Information request made to the Council by Freeths LLP on 26 November 2014. Details of the breeding bird survey were only made available on 30 January 2014, over 2 months later and indeed further information has now also been requested and provided in the week commencing 9 February 2015.

16. The delays in receipt of the information has meant that Baker Consultants' examination of the data has been severely hampered, however we have nonetheless found that not only was the data fundamentally flawed but it had been misinterpreted and in some instances misrepresented in the AA Dec 14. This is explored in more detail below.

2013 Moorland Fringe Habitat Survey

17. The purpose of the 2013 Moorland Fringe Habitat survey was to provide information on the distribution, composition and structure of habitats surrounding the South Pennine Moors (para

1.2.1 UEEC Jan 2014). and to identify those areas of habitat around the South Pennine Moors SPA that have a high potential to support SPA birds. The moorland fringe habitat survey report (UEEC Jan 2014) was not published with the AA nor made available on the Council's website and was only obtained by Baker Consultants following the Access to Environmental Information request. The basic premise was that feeding activity was considered by the authors to be associated with localised clusters of important meadows containing good quality supporting habitat (para 1.2.2 UEEC Jan 2014). In paragraphs 5.2.9 of the AA Dec 2014 it is stated that '*Three grassland types were identified that were considered more likely to provide a foraging resource for SPA qualifying bird species or birds typical of SAC habitats, and are collectively referred to here as 'supporting habitats'. These were; species rich semi-improved grassland, unimproved grassland and rush pasture. These supporting habitat types were dominant in only 9.0% of the surveyed area.* Plans showing the location of these habitats are reproduced in the AA Dec 2014 Appendix III.

18. The location of these habitats was then used to exclude SHLAA sites from the housing targets in the Core Strategy as is explained in full by Freeths LLP in the main body of this submission.

19. Not only were these surveys flawed in the way that they were executed but the basic premise was incorrect.

20. The first error in the Moorland Fringe Habitat survey is that the surveys did not cover the entire area around the SPA but rather concentrated on a series of transects around the SHLAA sites (UEEC January 2014 South Pennine Moorland Fringe Habitat Surveys). The extent of the surveys is shown in the AA Dec 2014 Appendix II. There was therefore no attempt in this survey to evaluate the total amount of 'functional habitat' around the SPA that is available to the SPA bird species. The assessment therefore exaggerated the impacts, as the suggestion is that the amount of 'supporting habitat' available to the SPA birds is very small at 232.2 Ha (or 9% of the survey area) (AA Dec 2014 para 5.2.9). The presence of '*supporting habitat'* was then used to exclude SHLAA sites. In paragraph 6.3.3 of the AA Dec

2014 it is stated that, '*Within the 2.5km zone new development must avoid direct (e.g. land take) or indirect (e.g. increased disturbance) impacts on supporting habitats. Measures to identify, protect and ensure future management of networks of supporting habitat need to be in place prior to sites being identified for development*'

21. Had the surveys evaluated all the land around the SPA that was available to the SPA birds it would be apparent that the available functional land is vast in comparison to the habitats that are present within the SHLAA sites.

22. There is however a more serious flaw in the Moorland Fringe Habitat surveys and that is the premise that the grassland habitats identified in the report ('supporting habitat') are the most suitable for the SPA birds. At AA Dec 2014 para 5.2.9 it is stated that, '*Three grassland types were identified that were considered more likely to provide a foraging resource for SPA qualifying bird species or birds typical of SAC habitats'*. There is in fact no correlation between the habitat types identified and the presence of SPA birds. This can be seen from even a cursory look at the survey maps presented in Appendix III of the AA Dec 2014. The bird records are not clustered around the 'important meadows' but are in fact widespread across the entire area. This lack of correlation between the habitats and the bird records is acknowledged in the unpublished survey report (UEEC Jan 2014 para 4.12.2). However, in the same paragraph the report goes on to say that, '*this analysis may be helpful in identifying SHLAA sites with a higher potential to impact on the SPA species*' - a statement that goes against the basic principles of scientific, evidence based evaluation. In an earlier Technical Note (Appendix 5), which was also obtained through the Access to Environmental Information request, this flaw is made even clearer, where on page 15, Section 10 first sentence it is stated that, "*In conclusion, on analysing the 2013 bird and habitat survey data, there do not appear to be **any clear patterns of bird association with habitats of greater botanical diversity**. There are some instances of greater bird abundance in areas of rush pasture or where agricultural improvement has been less intense, but this is by no means a uniform pattern. By the same token, there are a number of SHLAA sites that did not feature*

particularly interesting or diverse habitats but nonetheless supported a reasonable abundance of birds. Despite this, it would seem prudent to concentrate proposed residential allocations on areas that feature neither high numbers of bird records nor good quality habitats." [my emphasis].

23. Nowhere in the AA Dec 2014 is this absence of correlation explored. The only mention in the AA Dec 2014 of this lack of correlation between the bird records and the 'supporting habitat' is in paragraph 5.2.29 where is it stated that, "*In some locations there appears to be an association between higher bird density and features such as waterbodies, proximity to the SAC/SPA, or habitats of better quality. In other locations no such associations are apparent. Further detailed analysis of bird data and habitat variables is required to determine whether these habitats are preferred by target bird species"*. We can find no evidence that any further analysis has been carried out. If it had, the AA ought to have made express reference to it.

24. The AA Dec 2014 authors' attempt to develop a model that would identify 'supporting habitat' areas for such a large suite of birds regarded as relevant by the Council (i.e. as found in the original 1998 citation) was fundamentally flawed from a scientific point of view. The SPA species listed in the original 1998 citation are diverse in their ecology and their habitat preferences are not shared between the species. For example, species such as Short-eared Owl are confined almost entirely to the moorland habitats and its immediate fringes; while species such as Lapwing are widespread on grasslands and rarely found within the moorland; and species like Common Sandpiper are more likely to be associated with water bodies and, in particular, the local reservoirs.

25. The 2013 Moorland Fringe Habitat survey is so flawed as to be of no use whatsoever in assessing the impacts of proposed housing upon the SPA. The method used not only exaggerates the supposed impacts but more seriously is entirely misleading and unscientific. The conclusions drawn from the study are disingenuous and fundamentally flawed.

2013 Breeding Bird survey

26. As well as excluding SHLAA sites from the housing targets in the Core Strategy on the basis of the presence of supposed 'supporting habitats', SHLAA sites have been excluded on the basis that SPA birds were recorded as sighted within their boundaries. This is also commented upon by Freeths LLP in the main body of this submission. The data used to exclude SHLAA sites from the targets was gained from the 2013 Breeding Bird Survey carried out by West Yorkshire Ecology. The basis for excluding sites was a simple but erroneous argument that any loss of these sites (where SPA birds were recorded) would result in an impact upon the SPA. The argument is fallacious for the following reasons.

27. The only SPA-related species recorded within the SHLAA sites were Lapwing and Curlew. These species can only be regarded as relevant to the AA if the "breeding bird assemblage" is a qualifying feature of the SPA. However, as discussed above, the 2001 SPA review carried out by JNCC removed the breeding bird assemblage from the citation. Lapwing and Curlew are therefore not a part of any qualifying SPA feature.

28. Notwithstanding the citation issue, it also cannot be assumed that the birds recorded during the 2013 survey are in fact birds that are part of the "breeding bird assemblage" regarded by the Council as a qualifying feature of the South Pennine Moors SPA. As a component of the SPA breeding bird assemblage, any Lapwing and Curlew that were seen to be breeding outside the SPA cannot, by definition, be SPA birds. In order to be part of the breeding bird assemblage they would have to be breeding within the SPA, not outside it. During 2014 Baker Consultants carried out surveys of CEG's site in Burley-in-Wharfedale and recorded a number of Curlew. However, the registrations were confirmed to be breeding on the site and therefore were not and cannot correctly be considered as part of the SPA breeding bird assemblage.

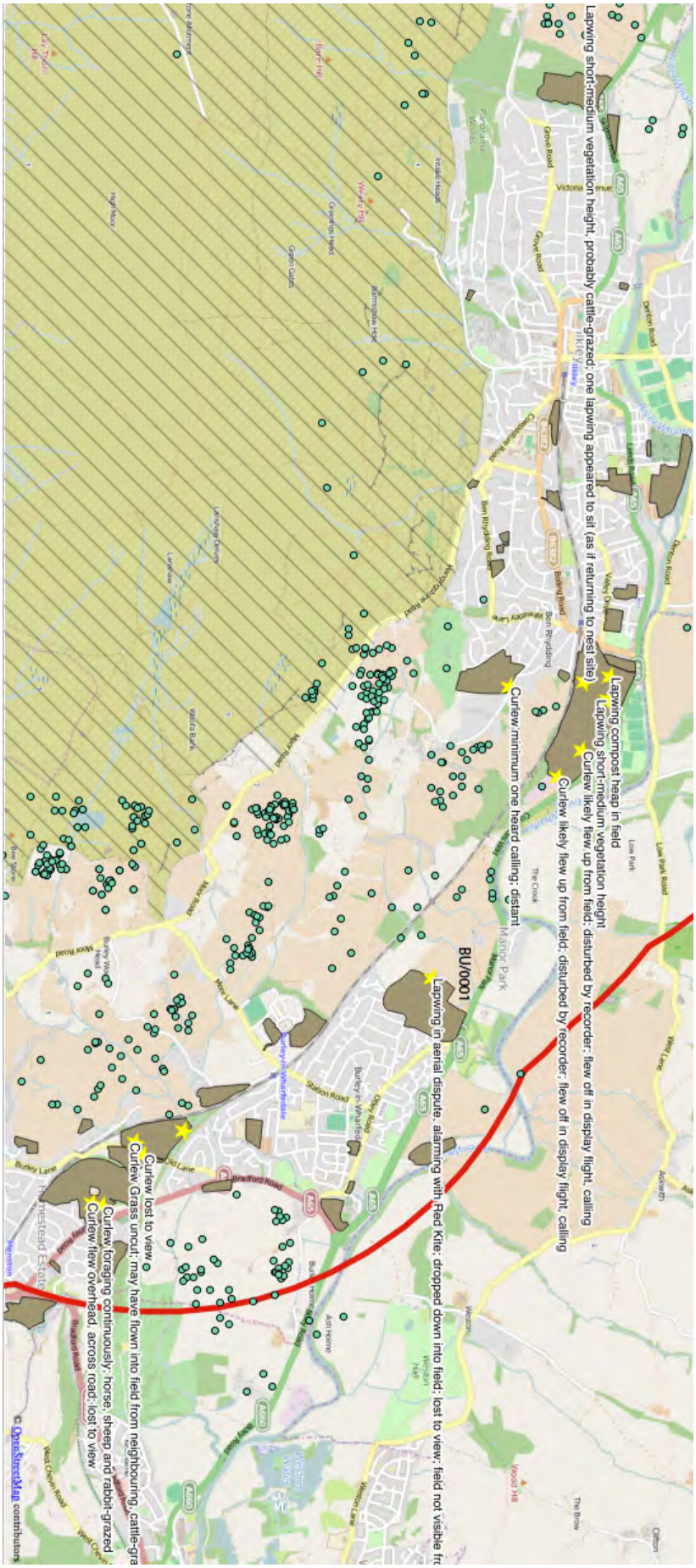
29. It could be argued that birds recorded as feeding or foraging are SPA species, i.e. that they are birds that are breeding on the SPA and are travelling to the surrounding fields to feed. However, this would also be a jump of logic as they could just as well be birds that are breeding outside the SPA and are feeding in neighbouring fields - a situation that is highly

likely given that birds will try to minimise the energy they expend in reaching feeding sites by traveling the least distance. Indeed, both Lapwing and Curlew are two species that have a preference for nesting on open grassland rather than the moorland habitats that make up the majority of the SPA. The species recorded in the SHLAA sites are therefore most likely to be non-SPA birds.

30. The 2013 breeding bird surveys provide details on whether the birds recorded were considered to be breeding or if they were feeding/foraging, loafing or simply flying overhead. In order to try and confine their analysis to birds that were recorded as using functional habitat the authors of the AA claim that they removed some of the records that were of birds flying overhead (para 5.2.17). Baker Consultants analysis of the data has however shown that this was not in fact the case (see para 33 below). Also while the authors acknowledged that species such as lapwing may be breeding outside the SPA boundary (para 5.2.20) the authors of the HRA have however made no effort to filter out birds that were evidently breeding outside the SPA and therefore cannot be part of the SPA breeding bird assemblage.

31. The assumption that the loss of any land where Curlew and Lapwing were recorded would result in an impact upon the SPA is evidently wrong. Furthermore there are errors in the way the data has been interpreted.

Figure 1


Lapwing short-medium vegetation height, probably cattle-grazed; one lapwing appeared to sit (as if returning to nest site)
Lapwing compost heap in field
Lapwing short-medium vegetation height
Curlew likely flew up from field; disturbed by recorder; flew off in display flight, calling
Curlew likely flew up from field; disturbed by recorder; flew off in display flight, calling
Curlew minimum one heard calling; distant
BU/0001
Lapwing in aerial dispute, alarming with Red Kite; dropped down into field; lost to view; field not visible fr
Curlew lost to view
Curlew Grass uncut; may have flown into field from neighbouring cattle-gra
Curlew foraging continuously; horse, sheep and rabbit-grazed
Curlew flew overhead, across road; lost to view
© OpenStreetMap contributors

32. The exclusion by the Council of sites in Burley-in-Wharfedale provides a good example of SHLAA sites being removed erroneously (Figure 1). Three sites were excluded. The most northerly site (BU/001, in relation to which CEG has an interest) was excluded because two lapwing were recorded on the edge of the SHLAA. However, when one examines the detail of this 2013 survey record the lapwings were not on the ground but were flying over the site involved in an 'aerial dispute'. Furthermore the surveyors considered the birds to be likely to be breeding. On this basis these birds cannot be part of the SPA breeding bird assemblage. The exclusion of this site from housing targets is therefore clearly erroneous (and frankly absurd). Even if one were to accept that the "breeding bird assemblage" (including lapwing) is a qualifying feature of the SPA, and that the lapwing were a breeding pair from the SPA , the presence of birds flying over the site is still not an indication that the land beneath is "functional habitat" relevant to SPA birds.

Correct interpretation of the survey data

33. In this section we present how the 2013 surveys should have been assessed to give a correct analysis that is based upon sound science. For the reasons set out above it is clear that the habitat survey data is of no use in assessing the potential impacts of the Core Strategy upon the SPA and should be disregarded entirely.

34. The 2013 bird survey data does however provide some information on the distribution of SPA bird species in the vicinity of the SPA and that can be used as a starting point to assess the likelihood of these birds being impacted upon by the Core Strategy.

35. As highlighted above, the AA Dec 2014 fails to provide any proper scientific assessment as required by law of whether proposed development under the Core Strategy would or could lead to an "adverse effect upon the integrity of the South Pennine Moors Special Protection Area (SPA)" by reference to the qualifying features of the SPA. Having identified the potential impact pathways in Section 5 of the AA Dec 2014 report there is no assessment of how these

impacts would affect the SPA by reference to the qualifying features and whether or not the integrity of the site would be compromised. Instead the AA Dec 2014 simply assumes the existence of these impacts and goes on to suggest ways of avoiding or mitigating these supposed impacts, i.e. it provides for avoidance and mitigation measures that may not even be necessary.

36. The process is further flawed in that the avoidance and mitigation measures now proposed (in the form of reduced housing targets and the restrictions set out in policy SC8) were in fact the starting point for the assessment as these were put forward in the first very early draft of the AA (dated May 2013), before the bird survey 2013 data had even been collected. Therefore the approach has been to use the AA Dec 2014 as a purported means of justifying restrictive policies and reduced housing targets, rather than considering whether restrictive polices / reduced housing targets are in fact necessary.

37. The correct HRA process that the authors of the AA Dec 2014 should have followed, having obtained the new 2013 bird survey data, is to have undertaken a completely new HRA screening assessment. Stephen Tromans QC's Further Opinion describes this test. As such they should have gone back to consider whether the original housing target figures (from the Core Strategy Further Engagement Draft) would or could result in a Likely Significant Effect (LSE) upon the SPA, by reference to the qualifying features of the SPA and considering the use by those birds of habitats outside the SPA.

38. Taking the Council's position that the breeding bird assemblage is a qualifying feature of the SPA, how should the Council have identified such SPA 'functional habitat' for this feature? The first step should have been to exclude any consideration of any 2013 bird survey records that were either breeding on the SHLAA sites or were clearly not using the land as 'functional habitat' (e.g. birds that were simply overflying). Only birds that were feeding on the site could possibly be birds that are part of the SPA's "breeding bird assemblage" feature, and even then this would represent a conservative assessment since there can be no certainty that birds feeding on land are also breeding within the SPA. Having done this exercise one would

have an understanding of the total numbers and species of birds that could be affected. In order then to assess impacts of potential loss of that functional land on the SPA the Council should then have (i) compared that loss against all habitat available to those species of birds; and (ii) compared the numbers of those species affected against the total numbers of those species within the breeding bird assemblage, bearing in mind also that an effect on one species of an assemblage would not constitute an effect on "the assemblage". None of this was done.

39. The 2013 survey data shows that there were only 26 records made of SPA species within the SHLAAs (20 Lapwing and 6 Curlew). Neither of these species are a qualifying feature of the SPA in their own right. These species are therefore only relevant to a HRA if the breeding bird assemblage is indeed a qualifying feature of the SPA.

40. First, by comparing the total number of lapwing and curlew birds that may be affected with the total number of breeding bird assemblage species recorded by the 2013 survey, it is possible to get an indication of the scale of any potential impact. The breeding bird assemblage is a single aspect of the SPA citation (albeit disputed) and should be assessed as such. In total there are 3094 records from breeding bird assemblage species within the 2013 survey data. The 26 (bearing in mind that at least 2 of these records were over flying birds) records from the SHLAAs represent only 0.84% of the records for breeding bird assemblage species recorded in the 2013 moorland fringe bird survey (i.e. birds within the SPA are excluded from this number).

41. Natural England normally advises that any plan or project that, when screened, affects more than 1% of the population of the qualifying interest should be subject to further scrutiny through an appropriate assessment - i.e. an impact that affects less than 1% is so small as to be insignificant and therefore cannot constitute a Likely Significant Effect. Based on this, the loss of the SHLAA sites would not cause an effect that was sufficiently large enough to require further appropriate assessment under the HRA process.

42. Secondly, as mentioned above, the loss of supporting habitat to new residential development needs to be considered in the context of the total amount of supporting habitat around the SPA that is available to the SPA birds. As discussed above it is clear that birds belonging to the breeding bird assemblage are widespread and found on most open habitat around the SPA.

43. If one accepts that the SPA species range up to 2.5 km from the SPA boundary there is approximately 42,899 ha of land available. If the assumption is made that half of this area is urban or otherwise unsuitable, then the area (21,450 ha) available as bird habitat is still approximately the same size as the SPA itself. The SHLAAs within 2.5km of the SPA total an area of 363ha, which amounts to 1.7% of the 21,450ha figure. The majority of these areas are not suitable for SPA bird species, as evidenced by the 2013 bird surveys, and so the loss of supporting habitat arising from development cannot be considered to give rise to a Likely Significant Effect. It is clear that the loss of functional habitat cannot be considered to give rise to a Likely Significant Effect (which is the first test that has to be considered under the HRA process), and therefore does not require examination within the AA and cannot be used as a reason for constraining housing numbers.

4. Recreational and 'urban edge' impacts

44. The AA Dec 2014 identified a range of impacts that might arise from increased numbers of people accessing the moors. The evidence that was put forward by the authors of the AA has been reviewed in detail by Mr Andrew McCloy, who is an expert in countryside access and recreation. His report is at Appendix B to these main submissions.

45. Having identified the potential impact pathways, the AA Dec 2014 however, entirely fails to assess whether the increased population associated with the SHLAAs would give rise to an adverse effect upon the integrity of the site by reference to the qualifying species. Rather, the approach has been to assume that any impact is contrary to the protection of the SPA. The error of this approach is explored in detail in Stephen Tromans QC's Further Opinion (para 55).

46. With reference to the SPA qualifying feature birds, the assessment of recreational pressures and urban edge effects needs to consider how these impacts would or could give rise to effects upon the birds that would result in a decline their population. Such an assessment needs to consider the whole area of the SPA, not simply areas around key access points or parts of the SPA that fringe the Borough. No such assessment has been made.

47. As discussed in Andrew McCloy's submission the analysis presented in the AA Dec 2014 relies very heavily on research drawn from the southern lowland heaths. Lowland heathlands are entirely different from upland moors and the research cannot simply be transferred from one habitat to another in the way that the authors of the AA Dec 2014 have done. Lowland heaths are essentially dry, growing on free draining, sandy soils. The lowland heath SPA/SACs are often archipelagos of small sites frequently surrounded by conurbations where visitor pressure can be very high, giving rise to a proliferation of informal pathways. The upland moors by contrast are based on water-logged, peat based soils. The sites are vast

tracts of land that are often inaccessible apart from a low density of formal pathways that in many cases are very well managed.

48. There is no evidence in the scientific literature that recreation pressures and urban edge effects can give rise to impacts in such a way as to result in an adverse effect upon the integrity of the SAC or SPA sites. In fact the literature cited by Mr McCloy (and indeed the literature that the previous iterations of the AA had referenced) has found no conflict between increased recreation and the bird populations for which the SPA site is designated.

49. There is also no mention in AA Dec 2014 of other prominent research into the possible impact of access and recreation on upland wildlife, none of which have yielded any conclusive evidence. For instance, the results of a Natural England commissioned study into upland breeding birds on open access land designated under the CRoW Act (Noble, Davis & Ockendon, 2007) reports that "*there is little evidence that implementation of the CRoW Act has had a significant detrimental effect on upland species, with most key upland species numbers either stable or increasing slightly on Open Access land between 2006-2007*" (p3).

50. In a more recent paper carried out by the Collaboration for Environmental Evidence (Showler *et al.*, 2010) carried out a review of 173 papers that were relevant to the impacts of recreation on ground-nesting and cliff-nesting birds. The review concluded that, "*The level of impact is highly variable between species and dependent upon locality and the disturbances involved... Although there have been many studies looking at the effects of disturbance, few have robust quantitative data regarding impacts on breeding success and populations. Evidence given frequently stems from ad hoc observations rather than from rigorous, structured field research. A number of studies simply infer that a detrimental impact is presumed, or evidence presented is anecdotal*" (p6).

51. While some of the literature has found reduced densities of upland birds in the vicinity of well-used footpaths when examined at a larger scale (1km grid), no effects on nesting density were found. None of the literature found that recreation was detrimental to moorland birds at

the population level – which is a key the test that must be applied when considering the integrity of the SPA. A review of the literature relating to recreational impacts on moorland birds is presented in Appendix 6.

52. It is evident that positive visitor management of the kind that has already been carried out on the moors such as paving of eroded footpaths, providing visitors with information on how to minimise their impact upon the moors and keeping dogs on leads would be beneficial and should be funded in the way that is envisaged by policy SC8. Such a policy, however, cannot be justified solely by reference to the South Pennine Moors SPA/SAC and the legal protection afforded to the site, as the scientific literature simply does not support such an approach.

53. Policy SC8 is therefore entirely unnecessary from a scientific point of view and is a duplication and over complication of Policy EN2 which seeks to protect European sites in any event. EN2 requires modification to properly reflect the provision of the Habitats Regulations but, once modified as per our submissions, is sufficient and makes SC8 redundant (also see Steve Tromans' Further Opinion).

5. Conclusions

54. Baker Consultants Ltd's analysis of the AA Dec 2014 has revealed serious scientific flaws in the data that has been used to inform the HRA. The procedures that have been followed in the AA Dec 2014 are also flawed and do not reflect the legal requirements for a HRA. The following aspects of the AA Dec 2014 need to be rectified before it can be regarded as a sound assessment of the effects of the Core Strategy upon the European sites:

    - The assessment should be based upon the JNCC 2001 citation.

    - The entire HRA process should be repeated based on the 2013 bird survey data and ignoring the Moorland Fringe Habitat survey results.

    - Having applied the HRA screening test to the 2013 data, and if necessary the "no adverse impact on integrity" test, then *necessary and justified* avoidance or mitigation measures should be proposed and the impacts reassessed.

55. Even if one takes the Council's position that the breeding bird assemblage is a qualifying feature of the SPA (which we do not accept), from our preliminary analysis of the 2013 data, the correct interpretation of the 2013 bird survey data is the loss of the SHLAA sites is not likely to have a significant effect upon the South Pennine Moors SPA. The only species found using the SHLAA sites in the 2013 survey were Curlew and Lapwing, i.e. species within the "breeding bird assemblage". Therefore the only possible impact on the SPA from loss of land outside the SPA to development is through impacts on the "breeding bird assemblage" feature. Even based on the 2013 bird survey data (which does not include survey of all the available functional habitat and which in any event includes birds which are or may not be breeding within the SPA and so are not in fact part of the "assemblage"), less than 1% of the population of "breeding bird assemblage" birds found in the 2013 survey would be affected by development on the SHLAAs. Furthermore any impact on other SPA birds through urban edge or recreational impacts are not sufficiently evidenced and in any event can be

addressed through provision of alternative natural greenspace, access management measures and habitat management and monitoring measures.

56. Furthermore there is no scientific evidence that recreational pressure or urban edge effects affects moorland birds at a population level, which is the key test that must be applied. Policy SC8 is entirely unjustified scientifically, is unnecessary and is a duplication of EN2.

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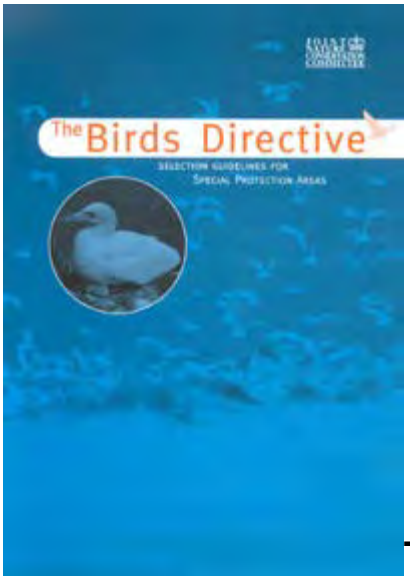
Appendix 1

SPA selection guidelines



The Birds Directive
Selection guidelines for Special Protection Areas

Introduction

In 1979 the European Community adopted the Council Directive on the Conservation of Wild Birds (79/409/EEC). This Directive is usually referred to as the Birds Directive. It provides for the protection, management and control of all species of naturally occurring wild birds in the European territory of Member States. In particular it requires Member States to identify areas to be given special protection for the rare or vulnerable species listed in Annex I (Article 4.1) and for regularly occurring migratory species (Article 4.2) and for the protection of wetlands, especially wetlands of international importance. These areas are known as Special Protection Areas (SPAs).

These guidelines have been prepared to assist the selection of SPAs in the UK. The process involves two stages. The first stage is intended to identify areas which are likely to qualify for SPA status. These areas are then considered further using one or more of the judgements in Stage 2 to select the most suitable areas in number and size for SPA classification. Stage 1's fourth guideline gives consideration, using the Stage 2 judgements, to cases where a species' population status, ecology or movement patterns may mean that an adequate number of areas cannot be identified from Stage 1's first three guidelines alone. In addition, these Stage 2 judgements are particularly important for selecting and determining the boundaries of SPAs for thinly dispersed and wide-ranging species.

In the application of Stage 2 judgements, a preference should be given to those areas which contribute significantly to the species population viability locally and as a whole. The protection of the populations in these areas is considered alongside, and is complemented by, other non-site-based special measures designed to maintain populations.

The national implementation of the Natura 2000 network and other special conservation measures need to be co-ordinated at a European Union level to ensure the survival and reproduction in the areas of distribution of each Annex I or migratory bird species. In the light of this objective, selection of SPAs in the UK has regard to conservation measures being taken for each species by

other European Union Member States.

Stage 1

1. An area is used regularly by 1% or more of the Great Britain (or in Northern Ireland, the all-Ireland) population of a species listed in Annex I of the Birds Directive (79/409/EEC as amended) in any season.
2. An area is used regularly by 1% or more of the biogeographical population of a regularly occurring migratory species (other than those listed in Annex I) in any season.
3. An area is used regularly by over 20,000 waterfowl (waterfowl as defined by the Ramsar Convention) or 20,000 seabirds in any season.
4. An area which meets the requirements of one or more of the Stage 2 guidelines in any season, where the application of Stage 1 guidelines 1, 2 or 3 for a species does not identify an adequate suite of most suitable sites for the conservation of that species.

Stage 2

1. Population size and density

Areas holding or supporting more birds than others and/or holding or supporting birds at higher concentrations are favoured for selection.

2. Species range

Areas selected for a given species provide as wide a geographic coverage across the species' range as possible.

3. Breeding success

Areas of higher breeding success than others are favoured for selection.

4. History of occupancy

Areas known to have a longer history of occupation or use by the relevant species are favoured

for selection.

5. Multi-species areas

Areas holding or supporting the larger number of qualifying species under Article 4 of the Directive are favoured for selection.

6. Naturalness

Areas comprising natural or semi-natural habitats are favoured for selection over those which do not.

7. Severe weather refuges

Areas used at least once a decade by significant proportions of the biogeographical population of a species in periods of severe weather in any season, and which are vital to the survival of a viable population, are favoured for selection.

Glossary of terms

Area
: Areas to be classified as SPAs should:

  - be distinct in habitat and/or ornithological importance from the surroundings and have definable and recognisable character;
  - provide the conservation requirements of the species in the season(s) and for the particular purposes for which they are classified.
    (see also 'Use' of areas)

Biogeographical population
: A biogeographical population is a group of birds which breed in a particular location (or group of locations), breed freely within the group, and rarely breed or exchange individuals with other groups.

Density
: The number of individuals of a species per unit area. In practice a range of methods are used to assess numbers in SPAs, for example, breeding pairs and singing males.

Migratory
: Article I(1)(a) of the Bonn Convention defines a migratory species as "the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or

more national jurisdictional boundaries."

Natura 2000
: EU network of classified SPAs and Special Areas of Conservation designated under the Habitats Directive.

Population viability
: Populations which contribute most to population viability locally and as a whole may show one or more of the following attributes:

1. a level of recruitment into the breeding population that equals or exceeds immigration and mortality (averaged over a suitable period of time); and/or
2. small scale population fluctuations around a stable population size; and/or
3. an area supporting a population of a species which enables its geographic range to be maintained on a long-term basis.

Best available scientific data will be used to make such assessments.

Ramsar Convention
: Convention on Wetlands of International Importance especially as Waterfowl Habitat. The Convention was adopted at a meeting of countries concerned with wetlands and waterfowl held in Ramsar, Iran in 1971 and was ratified by the UK in 1976.

Regular
: The Conference of the Contracting Parties to the Ramsar Convention has defined the term "regularly" as used in the Ramsar site selection criteria and this definition applies also to these Guidelines. A wetland regularly supports a population of a given size if:

1. the requisite number of birds is known to have occurred in two thirds of the seasons for which adequate data are available, the total number of seasons being not less than three; or
2. the mean of the maxima of those seasons in which the site is internationally important, taken over at least five years, amounts to the required level (means based on three or four years may be quoted in provisional assessments only).

In some instances however, for example species occurring in very remote areas or which are particularly rare, areas may be considered suitable on the basis of fewer counts.

Source
: Area/local population, within which fecundity exceeds the sum of mortality and immigration, and results in a net emigration of individuals.

Special Protection Area (SPA)
: Area classified under Article 4 of the Birds Directive.

SPA classification
: The process of formally notifying SPAs to the European Commission.

Special conservation measures
: Article 4.1 of the Birds Directive requires that "special conservation measures" are taken to conserve the habitat of species listed in Annex I of the Directive, to ensure their survival and reproduction in their area of distribution, in particular the classification of SPAs. Similar measures must be taken for regularly occurring migratory species, under Article 4.2.

Species range
: Article 4 of the Birds Directive requires Member States to ensure the survival and reproduction of Annex I and regularly occurring migratory species "in their area of distribution". Article I of the Habitats Directive necessitates, amongst other considerations, the "natural range of the species" to be maintained for a species' status to be regarded as favourable. The range of a species is the limits of its geographical distribution.

`Use' of areas

Article 4.2 of the Birds Directive requires special measures to be taken for migratory species at "breeding, moulting and wintering areas and staging posts along their migration routes". The boundary of each SPA is so determined that it delimits an area which provides the conservation requirements of the species in the season(s) and for the particular purposes for which it is classified.

Appendix 2

Executive summary

- This report presents the UK network of Special Protection Areas (SPAs) identified to meet UK obligations under Article 4 of the European Union’s Directive on the conservation of wild birds (EC/79/409 as modified) (‘the Birds Directive’).

- The SPA network presented in this report is the result of a review undertaken by the UK Joint Nature Conservation Committee together with the Environment and Heritage Service of Northern Ireland, the Countryside Council for Wales, Scottish Natural Heritage and English Nature. The network of sites has been formally recommended to government by the Joint Committee.

- Publication of this review has been guided by a Steering Group comprising representatives of the statutory conservation agencies as well as the National Assembly for Wales, the Scottish Executive and the Department of the Environment, Transport and the Regions.

- This review updates the assessment of UK SPAs published in 1992. Since that time, there has been a range of new ornithological surveys undertaken throughout the UK, especially in the uplands and related to a number of species that were highlighted as being poorly represented in the national network proposed in the early 1990s. In view of new information and possible gaps, Government requested JNCC to review the UK SPA network with a view to recommending a definitive list of sites, identified against explicit selection guidelines.

- JNCC has derived guidelines for selecting SPAs, building on existing UK and international practice and precedent. In the absence of agreed European guidelines, there may be scope for their use elsewhere.

- The guidelines have been used to assess the conservation requirements of species listed in Annex I of the Birds Directive and/or migratory species regularly occurring in the UK, and to identify an appropriate suite of SPAs for each species. For Annex I species, assessments have been made at either national scale (Great Britain) or, in the case of Northern Ireland, in an all-Ireland context. For migratory species not listed on Annex I, assessments have been made at an international scale (*i.e.* the relevant biogeographic or flyway populations).

- The SPA suites for each species collectively form the UK SPA network – a contribution to the European Union’s Natura 2000 network – that comprises 243 sites. The network extends to c. 1,454,500 ha (see map below).

- Appendix 6 of this report presents accounts for 103 species for which SPAs have been selected. These accounts summarise the species’ conservation requirements in the different seasons in which they are present in the UK. They also outline the reasoning underlying the selection of each species’ SPA suite.

- Appendix 7 describes each site in the UK’s SPA network in a standard format indicating for which species the site has been selected, the features that are important for these species, and the proportion of national or international populations supported.

- The review has been based on best-available data for sites and populations from the first half of the 1990s. The data were the most current and comprehensive that were available at the commencement of the review. They thus provide a comparative assessment for a limited period, and a fixed baseline, even though more recent data have since become available.

- The UK is of major international importance for several groups of birds. These include: breeding seabirds, wintering and passage wildfowl and waders, birds of Britain’s distinctive uplands, and birds of the Caledonian pine-forest. A high proportion – in some cases all – of the national and international populations of such species utilise the UK SPA network. In summer, the network holds over 4,946,000 breeding seabirds, whilst in winter it supports an average of over 2,186,000 non-breeding waterbirds. The habitat protection provided for these birds is a major contribution to their international conservation.

- Those species of greatest conservation concern (in the context of the Birds Directive) tend to have the highest proportions of their populations within the UK SPA network, as do those that have the smallest geographic ranges (in summer and winter), and those where the UK holds a high proportion of international numbers.

- SPAs are inappropriate for some UK bird species and thus for these, SPAs have not been selected. This report documents those populations which are broadly and/or sparsely dispersed or where are other reasons why site-protection measures under the Birds Directive are inappropriate, this report documents these. The special protection measures for these species are instead provided by legal protection, together with a range of wider-countryside conservation policies and other initiatives.

- It has not been possible to identify a full SPA suite for a small number of species because of currently changing status or lack of data. Monitoring schemes are being developed to give feedback on changing population status of species within each SPA as well as at national level. This, together with an ever-increasing knowledge of conservation requirements, will allow the UK to modify the SPA network if essential.

- There are minor differences between the UK list of SPAs and BirdLife International’s Important Bird Areas inventory. This is unsurprising – indeed, it is to be expected – since different selection guidelines, criteria, and priorities have been used to identify the respective site networks. The UK SPA list more accurately reflects the obligations under the Birds Directive.

- The carefully selected SPA network is of large size, contains a wide variety of habitats and includes sites spread throughout the UK. The network is logically and scientifically derived, collectively robust, and will make an enduring contribution to the conservation of Britain’s birds.

- The SPA network presented here provides for the site-based requirements of Birds Directive Annex I and migratory species that regularly occur in the UK. It will enable the UK to meet fully its obligations under the Directive to conserve its internationally important bird fauna.

Appendix 3

Good Afternoon Holly,

Thank you for your email.

Further to your recent telephone conversation with my colleague, please find attached an extract from the addendum to the minutes of the 51st meeting of the JNCC, held in Llandudno in June 2001, which specifically relate to the SPA Review.

We have also included the paper referred to in the extract (P08) to give context to the minutes.

We hope these are of assistance.

Thank you.

John

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IN CONFIDENCE **JNCC 01 P08**
June 2001

JOINT NATURE CONSERVATION COMMITTEE

FINALISING AND PUBLISHING THE UK SPA REVIEW

Cover note by Deryck Steer

1. This Paper provides the Committee with an update of developments on the current review of UK Special Protection Areas (SPAs) identified to implement Article 4 of the EC Birds Directive.

2. The Committee is asked to **note** the following points:

   2.1 The work to complete the current review has now been completed. Consultations have been held on the draft list of sites and qualifying species with conservation NGOs, and the lists have been finalised.

   2.2 A range of issues have been raised in the final stages of the review relating to the possible identification of further sites and/or interests on existing sites. Agreement in principle has been reached with government departments as to how to take forward work relating to these issues. A more inclusive approach is planned involving NGO input. Work on additional issues will be strictly prioritised.

   2.3 The current review will be submitted to the European Commission later this summer.

3. The Committee is asked to **endorse** the formal sign-off of the lists of sites and species in early July 2001 by the Chairman. This will follow consideration of the final outcome of the review by country agencies Councils, Boards and senior management (as variously appropriate).

4. The paper is presented in confidence since it reviews the potential risks of challenge to the SPA review by either UK NGOs or by the European Commission

IN CONFIDENCE **JNCC 01 P08**
June 2001

JOINT NATURE CONSERVATION COMMITTEE

FINALISING AND PUBLISHING THE UK SPA REVIEW

Paper by David Stroud and Ian McLean, JNCC; Peter Stuttard, CCW; Nigel Buxton, SNH; Peter Clement, EN; and Richard Weyl, EHS

1. Introduction

1.1 The publication of this review is the conclusion of a major project, involving many organisations and individuals and undertaken over a protracted period – a consequence of its size and technical complexity.

1.2 The Birds Directive entered into force in 1979 and required Member States to classify a national network of Special Protection Areas within two years. Progress in the UK however, as in other Member States, has been slow. The first seven UK SPAs were classified in August 1982, and by 1990 a total of 33 sites were classified. Following the publication of a major review by NCC in 1990, the rate of classification through the 1990s increased considerably. A further 65 sites were classified between 1990 and 1994, and a further 99 between 1995 and the end of 1999.

1.3 In 1993, the Department of the Environment requested from JNCC a 'definitive' UK list of SPAs. Initial work to deliver this request, focussed on the derivation of selection guidelines for UK SPAs. These were published by JNCC in June 1999. Following from this, work in 1998–2001 focussed on the application of these guidelines to derive lists of qualifying sites and species (and completing the documentation of the review).

1.4 Committee has received previous papers on the project in December 1997 (JNCC 97 P37), December 1998 (JNCC 98 N14), May 1999 (JNCC 99 P37), and September 1999 (JNCC 99 P21). These summarised progress towards deriving SPA selection guidelines and agreed UK lists of sites and qualifying species.

2. Submission of lists of sites and species to government

2.1 Following technical workshops held in early 1999, and a series of follow-up meetings between country agencies held subsequently, the formal submission of lists of qualifying SPAs and species took place in March 2000. These lists were announced by Ministers by means of Parliamentary Questions shortly afterwards (both for the UK, and separately by Welsh and Scottish Ministers).

2.2 In June 2000, JNCC on behalf of government consulted the NGO representatives of the Joint Working Party on the SPA review. Spreadsheets of sites and qualifying species that supported the SPA lists made public by Government were provided.

2.3 In July, RSPB, WWF-UK (on behalf of Wildlife and Countryside Link) and WWT supplied initial comments, although all organisations reserved the right to submit further comments in due course – subject to seeing the final review texts.

2.4 Over the winter, in parallel with the finalisation of the text of the review and supporting documentation, a series of meetings was held between RSPB, the statutory nature conservation agencies and UK administrations to discuss aspects of the review. These meetings have been helpful in clarifying the time-scales on which various issues might be resolved. These include species-related issues such as:

i. those birds for which major new national surveys have become available since the data window used for the SPA review;

ii. re-establishing raptors (Red Kite & Sea;

iii. passage and rocky shore waders;

iv. wintering gulls and raptors; and

v. new colonists;

as well as generic issues such as the treatment of:

i. extensions to existing sites;

ii. addition of new qualifying species to existing SPAs; and

iii. classification of SPAs on intensively managed agricultural land and other non semi-natural habitats.

In particular, the meetings with RSPB identified a range of issues where it is clear that action could not be taken within the timescale of the current review. It was agreed that dialogue about these points would need to be taken forward over a longer period.

2.5 In February 2001, JNCC supplied to RSPB, WWF-UK (on behalf of Wildlife and Countryside Link), Scottish Wildlife and Countryside Link and WWT, a complete consultation draft of the Review, comprising the introduction, site accounts and species accounts.

3. Outcome of the review

3.1 The review has identified a UK network of 244 SPAs extending to c. 1,454,500 ha. SPA suites have been identified for 102 qualifying species, as well as for internationally important assemblages of waterbirds and seabirds. In summer, the network holds over 4,946,000 breeding seabirds, whilst in winter it supports an average of over 2,186,000 non-breeding waterbirds. The habitat protection provided for these birds is a major contribution to their international conservation.

3.2 Excluding sites that have been subsumed for reporting purposes, 12 sites occur in Northern Ireland, 16 in Wales, 78 in England and 135 in Scotland. Additionally there is one cross-border site between England and Scotland, and two between England and Wales.

3.3 The full review documentation comprises three volumes:

i. an introduction (c. 140 pages) comprising rationale, guidelines, methodology and extensive summary data;

ii. 128 accounts for each of 105 species/features (c. 520 pages);

iii. accounts for each of 244 SPAs (c. 442 pages) in the form of citations, with supporting site lists (for UK and by country, and maps).

Given the size of the documentation, the full review text is not being circulated to the Committee in advance of publication but is available on request from the support unit (on CD-ROM).

3.4 Appended to this paper are key elements of the review comprising a 'sign-off' package:

i. Executive summary of the introductory volume

ii. Full UK and country site lists;

iii. Maps for UK and by country showing SPA locations;

iv. Version 4.1 of the SPA network spreadsheet ordered both by species and by sites. These highlight differences (additions and deletions) to qualifying species on sites since Version 3.2 submitted to the Committee in September 1999 (JNCC 99 P21).

3.5 The sign-off package is being circulated for approval to country agencies Councils, Boards and senior management (as variously appropriate).

4. Consultation and arrangements for future update of the SPA network

4.1 In April, detailed comments on the review were received from RSPB and WWT, with WWF-UK (on behalf of Wildlife and Countryside Link) being supportive of the issues raised. A consultation meeting between government departments, agencies and these bodies was held on 1 May to discuss the key points.

4.2 This meeting concluded that:

i. there would be a continuing need to update the SPA network in the light of biological changes, new surveys and improved knowledge, and the outcome of work identified in the review necessary to address specific areas where suites of SPAs for certain species are known to be deficient (for a variety of reasons);

ii. the process to update the SPA network needs to be more inclusive of the role of the NGOs – especially the data and information they hold;

iii. a range of issues have been raised for future consideration. Resource and other considerations do not permit tackling these on a broad front. Accordingly there needs to be prioritisation of the issues to be addressed;

iv. there was a need for government to set up more formal consultation arrangements with the conservation NGOs and other interests to take forward relevant dialogue;

v. whilst UK-scale update of the SPA network would, in due course, be necessary the immediate priority would be to focus on updating SPA suites for particular species – particularly where there are urgent conservation needs (as currently for Hen Harrier, Capercaillie and Chough);

vi. JNCC and agencies should seek to ensure that national surveys for relevant species deliver not only information on population sizes and distributions, but also data that is useful and timely for site identification and management. It would be appropriate to review SPA suites for such species in the light of data from such, usually decennial, surveys of species such as Hen Harrier, Golden Eagle, Peregrine and Chough so as to ensure that site suites remain well focussed;

vii. there needs to be an improvement in data flows between RSPB and the country agencies related to SPAs and Important Bird Areas, in particular of the necessary high quality of data needed to support SPA classification; and

viii. there was general agreement that it was desirable that the focus of UK SPA activity move from issues of site-selection to issues of management, monitoring and favourable conservation status.

4.3 DETR proposed a framework of three levels of consultation related to future update of the UK SPA network:

i a UK-level Natura 2000 Forum which would meet annually and involve representation from a wide range of interest groups. It was anticipated that this would provide an important means for government to disseminate key messages regarding the future development of the Natura 2000 network in the UK, and become a sounding board for relevant advice and opinion;

ii a UK-level SPA Technical Working Group. This would be convened by JNCC and involve country agencies, NGOs, land or business interests, and some departmental representation. It may establish smaller groups to seek to resolve specific issues;

iii there would continue to be active dialogue between NGOs and country agencies on a bilateral basis regarding SPA issues, although this would continue to be carefully managed so as to ensure UK policy consistency.

Additionally, the Natura 2000 Co-ordinators Group (comprising senior staff from UK departments, devolved administrations and agencies) will continue to meet to discuss co-ordination of SPA and SAC issues within government. There will be a Liaison Group with NGOs that will meet following Co-ordinators Group meetings.

4.4 Terms of Reference for the Natura 2000 Forum and SPA Technical Working Group have yet to be agreed, although the 1 May meeting with NGOs undertook initial prioritisation of issues for the Technical Working Group to consider.

4.5 The first meetings of the Technical Working Group and Natura 2000 Forum are planned, respectively, for September 2001 and November 2001.

4.6 Agencies and government departments have noted and agreed the need for a continuing strong UK-focus to work in this area. This will continue to require JNCC inputs to co-ordinate the work of the agencies and maintain consistent standards.

5. Publication of the current review

5.1 Following formal sign-off of the review by country agencies Councils, Boards and senior management (as variously appropriate), the JNCC Chairman will sign-off and send the review to DETR in July 2001. It would then be copied by DETR to the devolved administrations.

5.2 DETR will then submit the review to the European Commission. It is anticipated that this will be by means of a small group, led by DETR, who will visit Brussels to present the review and its key conclusions no later than 16/17 July.

5.3 In the second half of August 2001, JNCC will make the review publicly available on its web-site. The public release of the document will be accompanied by Press Releases from JNCC and the country agencies, co-ordinated by JNCC. There is the potential for significant media interest.

5.4 The review will be published by JNCC as a three-volume book in the autumn (September/October). The review is the most comprehensive of any national SPA network undertaken by a European government agency and there is already international interest in its findings. JNCC will distribute the review widely amongst relevant government departments and agencies in Europe in order to encourage its use as a model for other potential national reviews.

6. Anticipated risks at UK level

6.1 Whilst the review has been undertaken to high standards, there remain a variety of risks that may result in adverse reaction from various players. In the light of events following UK's submission of SAC lists to Europe, it is pertinent to review these.

i. The SPA selection guidelines (JNCC 99 P37) have been applied rigorously in England, Wales and Northern Ireland and more flexibly in Scotland. For example there have been differences in application of Guideline 1.4 (which allows the selection of sites holding less than 1% of relevant populations), and in the application of Stage 2 of the SPA guidelines (which allows sites holding more than 1% of populations not to be selected). Thus of 55 instances of the use of Stage 2 to *exclude* qualifying species on sites at Stage 1, 52 have been in Scotland, two were in Northern Ireland, one was in Wales and none occurred in England. Likewise of 46 instances of the use of Guideline 1.4 to *include* qualifying species on SPAs which do not otherwise qualify under Guidelines 1.1, 1.2 or 1.3, 35 have been in Scotland, seven occurred in England, three in Northern Ireland, and one occurred in Wales. Such variation in the grounds for SPA selection across the UK occurs as a result of differences in bird distributions, their habitats and varying landscapes.

ii. RSPB have raised a significant number of issues related to the current review (including those noted in 2.4 above). Whilst acknowledging that it is the most comprehensive review of a SPA network ever undertaken by a Member State, their formal response noted a number of areas where they consider the review to be inadequate. It is to be anticipated that their public response to the review will be that of welcome, although noting inadequacy in certain areas. Their formal response clearly sets out their appreciation of the legal grounds for this. It is hoped that the continuing consultation arrangements outlined above (3.3) will suffice to re-assure RSPB on this latter point in order

to ensure continued co-operation and hence avoid the risk of legal challenge.

iii. To a significant extent, the overall corporate position of RSPB will depend on the overall conclusion of a debate within the organisation. There appear to be a range of differing views within RSPB as to the adequacy of the UK SPA review and desirable ways forward. RSPB in Scotland are more critical of the detail of the review than are their colleagues elsewhere.

iv. Comments received from WWT and WWF (on behalf of Wildlife and Countryside Link) were largely positive and welcoming of the publication of the review. They looked forward to working with JNCC and the country agencies in supporting necessary monitoring and other work that would now be necessary.

7. Future Actions

7.1 With the publication of the SPA late this summer, and in hard copy in the autumn, UK co-ordination of SPA issues moves to a new phase. For the JNCC support unit, it will be important that work associated with the proposed SPA Technical Working Group is kept to manageable levels (and significantly less than those inputs required to produce the current review).

7.2 There will be continuing resource implications (in particular staffing) for the country agencies consequent upon future review activity.

7.3 There will be significant activity in JNCC and the country agencies over the next two years to produce the complementary review of SPAs in the marine environment. Necessary staff time for this activity, will have implications for the time available for containing work on the terrestrial SPA network.

IN CONFIDENCE **JNCC 01 M02**
June 2001

JOINT NATURE CONSERVATION COMMITTEE

(Extract from) CONFIDENTIAL ADDENDUM TO THE MINUTES OF THE FIFTY-FIRST MEETING OF THE JOINT NATURE CONSERVATION COMMITTEE, HELD ON WEDNESDAY 13 JUNE 2001 IN LLANDUDNO, NORTH WALES

8. Finalising and publishing the UK SPA Review (JNCC 01 P08 – Confidential)

8.1 Mr Steer introduced the paper, which provides an update on the review of the UK SPA network and outlines a number of issues arising from consultation with NGOs and subsequent submission to the European Commission. The SPA Review is considered the most comprehensive undertaken by a member state and has built on the lessons learnt during the SAC Moderation process. The NGOs welcomed the opportunity for consultation however a small number of issues remain unresolved. Support Unit staff are meeting RSPB Scotland shortly to explore whether agreement can be reached on any of these issues.

8.2 The following points were raised in discussion:

i. Paragraph 6.1 (i. and ii.) should be redrafted as it could lead to misunderstandings. A form of words acceptable to Committee was agreed.

ii. The role of, and ongoing dialogue with, RSPB and Birdlife is important, given the wealth of data and expertise they hold, and their valuable contributions to the Review.

iii. The process for future review should establish a framework based on access to biological information, periodicity of review and a practical methodology to operate within available resources. Future reviews should avoid becoming too labour intensive and focus on ensuring the network reflects conservation needs and changes in conservation status based on sound data.

iv. The publication of the proposed SPA network should be supported by a positive launch and a shared JNCC and country agencies position. The publication of the site list should ensure that vulnerable species and sites are not compromised.

8.3 **Subject to the points raised Committee endorsed the lists of sites and species, following consideration by country agencies Councils and Boards. Committee delegated to JNCC Chairman to sign-off the lists in July for submission, as formal advice, to DEFRA.**

Appendix 4

European Site Conservation Objectives for South Pennine Moors Phase 2 Special Protection Area Site Code: UK9007022

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A098 *Falco columbarius*; Merlin (Breeding)

A140 *Pluvialis apricaria*; European golden plover (Breeding)

A466 *Calidris alpina schinzii*; Dunlin (Breeding)

Breeding bird assemblage

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014. Previous references to additional features identified in the 2001 UK SPA Review have also been removed.

Appendix 5

Technical Note

URBAN EDGE ENVIRONMENTAL CONSULTING

Project	South Pennine Moorland Fringe Habitat Survey	**Date**	October 2013
Note	Initial Interpretation of Bird and Habitat Survey Data	**Ref**	UE-0126
Author	Jon Cox / Nick Pincombe	**Page**	1 of 32
Status	Final		

1. Introduction

The HRA issued by UEEC in May 2013 concluded that additional work was required to support the assessment. This included in particular;

"From the data that is available to date, it is clear that residential allocations should ideally be located more than 2.5km from the SAC/SPA boundary. This is the zone most frequently utilised by several of the SAC/SPA species. Within this zone new housing must avoid direct (e.g. land take) or indirect (e.g. increased disturbance) impacts on supporting habitats. It is anticipated that the extent of this zone should be guided by the results of the 2012 South Pennine Moorland Fringe Bird Survey, and additional bird and habitat surveys [scheduled for 2013]. "

To better understand the use of the moorland fringe by birds of the SPA and SAC surveys were undertaken in 2013 to record the distribution of potentially important supporting habitats and bird activity. This report provides a preliminary assessment of the results of these surveys (and in the absence of the 2012 bird survey data) to help guide the allocation of land within the Bradford City district for housing.

2. Qualifying and Typical Bird Species

The HRA identified species for which the South Pennine Moors SPA and North Pennine Moors SPA had been classified. The South Pennine Moors support internationally important populations of four species, golden plover *Pluvialis apricaria*, merlin *Falco columbarius*, short-eared owl *Asio flammeus*, peregrine falcon *Falco peregrinus* and dunlin *Calidris alpina schinzi*. The North Pennine Moors SPA also supports internationally important populations of these species, plus hen harrier *Circus cyaneus* and curlew *Numenius arquata* but not short-eared owl.

In addition to those species for which the SPA has been selected, the HRA identified a suite of bird species that were considered typical of the Annex 1 habitats for which the South Pennine Moors SAC and North Pennine Moors SAC had been selected. This is a rather loose assemblage of species considered characteristic of the Annex 1 habitat types within the SAC. The HRA identified the following typical SAC species;

- Merlin *Falco columbarius*,
- Golden Plover *Pluvialis apricaria*,
- Red Grouse *Lagopus lagopus scoticus*,
- Meadow Pipit *Anthus pratensis*,
- Curlew *Numenius arquata*
- Short-eared Owl *Asio flammeus*,
- Twite *Carduelis flavirostris*,
- Skylark *Alauda arvensis*,
- Dunlin *Calidris alpina schinzi*,

It is important to note that several of the breeding wading birds identified in the moorland fringe survey during 2013 were not considered typical species of the Annex 1 habitat types within the SAC, in particular, lapwing, snipe and redshank. These tend to be species of rush pasture and wet meadows that are not habitats included in the SAC. However, there is a good deal of overlap between habitats used by these wading birds and those, such as the curlew, that is a typical species of the moorland Annex 1 habitats within the SAC.

3. Habitat Survey Results

The habitat survey was undertaken to record information on habitats along the transects used in the bird survey, and to gain an understanding of which areas of land within c.2.5km provide suitable, high quality foraging habitat for SAC/SPA species. Transects both within 2.5km of the SPA boundary and within 1km of settlements were prioritised. Details of the survey method and results are provided in a separate report.

A total of 1,534 survey polygons were digitised, covering an area of 2,685.8ha. In many instances, these were individual fields, although in places, groups of fields were combined where they had similar habitat characteristics. Mean field unit size was 1.75ha (ranging from 0.0013 – 39.1ha). Habitat cover within each polygon was recorded within five cover classes (1-5%; 6-25%; 26-50%; 51-75%; 76-100%). Table 1 summarises the dominant habitat type coverage across the surveyed meadows.

4. SPA Bird Species

Golden plover

The bird survey made 48 records of golden plover; these can be referred to as registrations and include one or more birds both seen and heard. Of these, 16 registrations were of birds within the SPA boundary. Of the remaining 32 registrations from outside of the SPA, 9 were within 2.5km of Ilkley Moor and the remaining 23 within 2.5km of the SPA boundary to the south west of the District.

Habitat type was recorded by the bird survey for only two registrations, as species poor semi-improved grassland. Eight of the registrations were from fields included within the habitat survey (Pincombe & Cox, in press). These were from fields recorded mostly as mixtures of semi-improved grassland (species poor and species rich) and tussocky rush pasture. All these fields were grazed with sheep and one with a mix of sheep and cattle.

Table 1: Predominant habitat types within surveyed meadows

Habitat Type	No. of polygons	% of area	Area (Ha)
Amenity Grassland	49	1.26%	27.21
Improved Grassland	294	23.85%	516.04
Species poor semi-improved grassland	680	54.84%	1186.66
Species rich semi-improved grassland	55	9.30%	201.36
Unimproved grassland	9	0.79%	17.20
Rough grassland	28	1.33%	28.86
Enclosed acid grassland	17	1.57%	33.93
Dry dwarf shrub heath	2	0.39%	8.42
Dry heath/acid grassland mosaic	11	1.91%	41.43
Rush pasture	3	0.63%	13.70
Woodland	16	0.57%	12.40
Other (mixed habitats)	94	3.55%	76.83
Total	**1258**	**100.00%**	**2164.05**
Meadows without dominant (>75%) habitat	245	-	389.35
Grand Total	**1503**	**-**	**2553.40**

Merlin

The bird survey made seven records of merlin. All of these were associated with Ilkley Moor, with one record from within the SPA and the remaining six from birds outside of the SPA boundary. Only one record was from fields covered by the habitat survey. This was a horse grazed field to the east of Ilkley Moor containing areas of unimproved acid grassland and wet rush pasture.

Short-eared owl

Only three records of short-eared owl were made in the bird survey. All three records were from a bird seen within the SPA to the western end of Ilkley Moor. It is assumed that this was the same bird recorded hunting over the moor at three closely related locations during the first survey round.

Dunlin

Two records of dunlin were made during the survey. These were both outside of the SPA boundary and associated with the moors to the south west of the District. One record was from the shores of Leeshaw Reservoir and the second from an improved grass field (included in the habitat survey) to the north west of Queensbury.

Curlew

Curlew are not an SPA qualifying species for the South Pennine Moors SPA but are a qualifying feature of the North Pennine Moors SPA. They have been considered typical specie of the Blanket Bog habitat for which the two SAC were selected.

Curlew were the most numerous species recorded in the 2013 bird survey with a total of 1,856 records, however, a number of these records were of birds over-flying the surveyor. These birds may not have any functional habitat relationship with the location of the record and have been removed from the data set leaving a total of 1,788 records. Of these, 193 records were made of birds within the South Pennine Moors SPA boundary. The remaining 1,595 records were of birds outside of the SPA. Most of these were within 2.5 km of the SPA boundary (1,446 records) with only 149 records outside of the 2.5 km buffer.

A total of 317 curlew registrations were made from fields included within the Habitat Survey. Analysis of fields from which curlew were recorded shows most are from fields dominated by improved and semi-improved grasslands (fields with >75% cover) with 24% within fields of improved grassland, 42% within species poor semi-improved grassland, 9% within species rich semi-improved grassland. Rush pasture was also a feature of many of the fields from which curlew were recorded, being present in 15% of fields. Cover values of rush pasture were generally <50%, with 10% of fields in which curlew were recorded having less than 25% rush pasture cover.

In all, 761 records of curlew were of birds within 1km of settlement boundaries.

5. Non-SPA Breeding waders

A group of three breeding wader species (lapwing, redshank and snipe) were recorded in the 2013 bird survey that were not considered typical of the Annex 1 habitat types for which the SAC have been selected, nor are they listed as species for which the SPA have been classified. However, these species show a strong preference for good quality rush pasture and meadow habitats in the moorland fringe and hence can be used as indicators of better quality moorland fringe habitat that might also be used by a range of SPA and typical SAC species. In the current absence of data on use of habitat by SPA and SAC bird species it was considered important to utilise information about the distribution of these breeding waders to identify potentially important moorland fringe habitat for SPA and SAC bird species.

A total of 979 lapwing records were made during the 2013 bird survey. A sift of this data has been undertaken to remove records of birds simply over-flying recorders. This leaves a total of 967 records of lapwing either foraging or undertaking nesting-associated behaviour (for example displaying, alarm calls or nest sitting). Only 38 of these records were from within the SPA boundary (3.9%). However, most lapwing records were from within 2.5 km of the SPA boundary (880 records or 91%). Almost half of all lapwing records were also close to settlement boundaries (141 records or 14.6% within 500m of settlements).

The number of lapwing records from fields recorded as part of the habitat survey was 221 (23%). Most of these fields consisted predominantly of species poor semi-improved grassland (36%), species rich semi-improved grassland (20%) or improved grassland (23%). Rush pasture was present within 19% of these fields,

although in most cases rush coverage was less than 50%. The habitat composition of fields used by lapwing was similar to that used by curlew.

There were far fewer records of redshank and snipe from the 2013 survey. Table 2 summarises the distribution of these in relation to the SPA boundary, settlement boundary and habitat survey.

Table 2: Distribution of redshank and snipe in relation to SPA, settlements and habitats

Variable	Redshank		Snipe	
Total Records	***30***	***100.00%***	***104***	***100.00%***
Within SPA	5	16.67%	21	20.19%
Within SPA 2.5km buffer	28	93.33%	104	100.00%
Within settlement 500m buffer	5	16.67%	2	1.92%
Within Semi & Unimproved meadows & rush pastures	7	23.33%	13	12.50%
Within All meadows included in 2013 survey	10	33.33%	15	14.42%
Within SHLAA sites 400m buffer	6[1]	20.00%	8[2]	7.69%

6. Typical Birds of SAC Habitats

Twite

The 2013 survey made no records of twite.

Red grouse

Red grouse are species of heather moorland and were unlikely to be recorded from the moorland fringe habitats included in the habitat survey.

A total of 77 records of red grouse were made in the 2013 bird survey; 51 of these (66%) were from within the SPA boundary. No red grouse were recorded from fields included within the habitat survey.

Meadow pipit and skylark

These two passerines were included as typical species of moorland dry heathland habitats, both as indicators of habitat condition, but also due to their value as a food source for several moorland birds of prey.

The 2013 bird survey made 690 records of meadow pipit, 138 (20%) of which were from within the South Pennine Moors SPA. Most records were from within 2.5 km of the SPA boundary (88%) and 260 (38%) records were from within 500m of a settlement boundary.

[1] Six records of redshank from two SHLAA sites (Denholme Road, Oxenhope and Perseverance Lane, Queensbury)

[2] Eight records of snipe from two SHLAA sites (Crag Farm, Menston and Ilkley Road, Riddlesden)

Few records of skylark were made with a total of 159 registrations. Of these, 17 were from within the SPA boundary (11%). Most records were from within 2.5km of the SPA boundary (87%) and 16% were from within 500m of a settlement boundary; 37 of the records (23%) were from fields included in the Habitat Survey.

Analysis of the data from the meadow survey shows that most fields in which skylark were recorded had >75% cover of species poor semi-improved grassland (53%) or species rich semi-improved grassland (12%). Up to 50% cover of rush pasture was present in 24% of meadows in which skylark were recorded.

7. Distribution of SPA and SAC Typical Bird Species

Curlew and lapwing were the most frequently recorded birds in the 2013 survey. Particular concentrations of records of these two species were found along the southern and western fringes of Ilkley and Rombalds Moor, with localised concentrations on the north eastern fringes of the Moor south and west of Burley in Wharfedale.

On the moorland fringe to the west of the district, bird records are widely distributed across some extensive areas of rush pasture and semi-improved grassland. Records of curlew and lapwing were made all along the moorland fringe south and west of Denholme, the moorland fringes south and west of Oxenhope and to the west of Haworth, Oakworth and Laycock.

Golden plover records in the vicinity of Ilkley and Rombalds Moor were very few and mostly limited to small groups of birds seen foraging to the south, west and east of the Moor. The highest concentration of records was of over 50 birds seen to the west of Baildon Moor near Eldwick together with up to 24 lapwing.

A total of 23 golden plover records were made from the west of the District. This included a particular concentration of records from the moorland and moorland fringe along Stairs Lane west of Oxenhope. Displaying birds were also recorded to the south of the Thornton Reservoir south of Denholme.

Records of birds of prey were few. There was a notable concentration of merlin and short-eared owl records from the western end of Rombalds Moor near the fringes of the conifer plantation on this part of the moor. Further records of merlin were also made on the moorland fringe feeding on meadow pipits over fields between the SPA and Silsden.

8. Use of SHLAA Sites by SPA and SAC Birds

Sites have been identified through the SHLAA where development could potentially take place. A total of 986 SHLAA sites have been identified within Bradford Metropolitan District. These extend over an area of 2,398 hectares (mean site size = 2.43 ha).

Habitat surveys were undertaken for part or all of 194 SHLAA sites, focusing in particular on those sites falling within both 2.5km of the SAC/SPA and 500m of settlements. This includes four sites with >50% cover of species rich semi-improved grassland and four sites with up to 25% rush pasture. No unimproved grassland was recorded from within SHLAA sites.

A total of 98 records of SPA and SAC typical species were made from SHLAA sites in 2013; see Table 3.

Table 3: SAC/SPA bird species recorded within SHLAA sites

Species	Number of bird records
Curlew	54
Lapwing	18
Meadow pipit	19
Skylark	9
Red grouse	1

A simple analysis was undertaken to identify SPA, SAC typical bird species and breeding waders recorded from within SHLAA sites. A total of 32 SHLAA sites were identified with records of either SPA species or breeding waders covering an area of 337ha (in reality, these were mostly records of curlew with four records of lapwing and nine of meadow pipit). The development of these sites could have direct impacts on these species. However, there are also concerns for wider impacts of development on important bird populations and habitats that support them. This has been acknowledged in relation to the lowland heathland SPA in southern England where housing development is restricted within 400m of SPA boundaries due to the impact of recreation and associated urban edge pressures. This 400m buffer was initially applied by Natural England in relation to the Thames Basin Heaths SPA but has also been adopted for the Dorset Heathlands SPA and Wealden Heaths SPA.

8 Birds and Habitats within Proximity to SHLAA Sites

A series of analyses have been applied to a 400m buffer around the SHLAA Sites. This has been used to assess the proximity of protected sites, SPA and SAC typical bird species, other breeding wading birds and habitats of potential to support these birds. The results of each of these analyses are described below.

8.1 SHLAA sites in proximity to the South Pennine Moors SPA and SAC

A total of ten SHLAA sites occur within 400m of the South Pennine Moors SPA and SAC boundary as shown in Table 4. Most of these are in Ilkley with one site at Crag Top Farm in Burley Woodhead.

Table 4: SHLAA sites within 400m of the South Pennine Moors SPA and SAC

Ref	Area (ha)	Settlement	Address
IL/021	1.67	Ilkley	Hangingstone Road.
IL/023	3.37	Ilkley	Grammar School, Cowpasture Road, Ilkley
IL/009	7.18	Ilkley	Ben Rhydding Drive, Wheatley Grove
ME/004	9.98	Menston	Crag Top Farm, Burley Woodhead
IL/026	0.33	Ilkley	Clifton Road
IL/028	0.27	Ilkley	Clifton Road
IL/030	0.27	Ilkley	Ben Rhydding Road
IL/025	0.20	Ilkley	Queens Road
IL/035	0.22	Ilkley	Parish Ghyll Drive, Ilkley
IL/008	0.70	Ilkley	Clifton Road / Ben Rhydding Road

8.2 SHLAA sites and SPA birds

Only four SHLAA sites have records of SPA birds within 400m. These are listed below in Table 5. They consist of three sites in Denholme with records of golden plover within 400m of the site and a single site in Queensbury where there was a record of dunlin within 400m of the site.

Table 5: SHLAA sites within 400m with records of SPA birds

Ref	Area (ha)	Settlement	Address
DH/011	1.94	Denholme	Halifax Road, Denholme Gate
DH/009	8.04	Denholme	Beech Avenue, Keighley Road, Denholme
DH/015	0.27	Denholme	Halifax Road, Denholme Gate
QB/024	2.46	Queensbury	Perseverance Lane/Green Lane, Mountain

8.3 SHLAA sites and SAC typical birds

A total of 165 SHLAA sites had records of SAC typical bird species. These were mostly of curlew (111 sites) although there were also significant numbers of SHLAA sites with meadow pipit records (105 sites) and skylark records (25 sites) from within 400m of the site. SHLAA sites with records of SAC typical bird species within 400m are listed in the Annex.

Table 6: Numbers of SHLAA sites with SAC typical bird species records within 400m

Settlement	Number of SHLAA sites with SAC typical species within 400m	Total area (ha)
Addingham	16	47.45
Baildon	4	18.59
Bingley	13	25.43
Burley	10	40.6
Denholme	16	40.46
East Morton	11	18.69
Haworth	18	29.74
Ilkley	21	104.47
Keighley	11	34.57
Menston	8	81.28
Oakworth	11	14.36
Oxenhope	5	4.43
Queensbury	6	30.72
Silsden	10	77.71
Thornton	5	12.27
Grand Total	**165**	**580.77**

8.3 SHLAA sites and breeding non SPA/SAC wading birds

This analysis considers those SHLAA sites with records of lapwing, redshank and snipe within 400m of the site boundary during the breeding season. Birds at this time of the year are likely to be nesting in the vicinity of where they were recorded. However, as with curlew, the records of lapwing simply in flight have been excluded.

A total of 53 SHLAA sites were identified with records of lapwing, redshank or snipe from within 400m of the site boundary during the bird nesting season. This comprised 52 sites with lapwing records, 2 sites with redshank records and 2 with records of snipe.

Four sites had records of more than one wading bird species within 400m as listed in Table 7. Two sites had records of redshank and lapwing (Denholme Road, Oxenhope and Perseverance Lane, Queensbury). A further two similar sites had records of lapwing and snipe (Ilkley Road, Riddlesden and Crag Top Farm, Burley Woodhead).

Table 7: Numbers of SHLAA sites with breeding non SPA/SAC wading birds within 400m

Reference	Settlement	Address	Species	Number of birds
OX/001	Oxenhope	Denholme Road	Lapwing	1
OX/001	Oxenhope	Denholme Road	Redshank	5
QB/024	Queensbury	Perseverance Lane/Green Lane, Mountain	Lapwing	3
QB/024	Queensbury	Perseverance Lane/Green Lane, Mountain	Redshank	2
KY/040	Keighley	Ilkley Rd, Riddlesden (Barley Cote Farm)	Lapwing	1
KY/041	Keighley	Ilkley Road, Riddlesden, Keighley	Snipe	1
ME/004	Menston	Crag Top Farm, Burley Woodhead	Lapwing	1
ME/004	Menston	Crag Top Farm, Burley Woodhead	Snipe	1

8.4 SHLAA sites and supporting habitats

The habitat survey undertaken in summer 2013 recorded a range of grassland habitat types that might be attractive to breeding and foraging SPA and typical SAC bird species. Three grassland types were identified that were considered more likely to provide a foraging resource for this group of bird species and are collectively referred to here as 'supporting habitats'; species rich semi-improved grassland, unimproved grassland and rush pasture.

An analysis of the relationship of these three grassland types and SHLAA sites has been undertaken using the 400m buffer. A total of 54 SHLAA sites were identified with one of these three grassland types within the 400m buffer. Table 8 lists the 54 SHLAA sites by settlement together with the number of meadows of each grassland type. Of the three grassland types considered, species rich semi-improved grassland is the most commonly associated with the SHLAA sites. This is grassland that has received some degree of agricultural improvement but also supports a number of wild grassland species such as common knapweed, crested dog's tail and a mix of other non-agricultural grass species.

The results of the analysis need to be treated with some caution as there is currently little evidence to demonstrate a link between these grassland types and use by SPA and typical SAC bird species. Moreover, this assessment has considered only those meadows that are dominated by one of these grassland types (>75% cover) and it may be that the presence of small areas of a grassland type within a field are important for these birds. Such fields have not been identified through the analysis. Despite these limitations, the results of this analysis may be helpful in identifying SHLAA sites with higher potential impact on the SPA and SAC when considered in combination with the analysis of bird distribution.

Table 8: SHLAA sites with supporting habitats within 400m

SHLAA Reference	Species rich semi-improved	Unimproved grassland	Rush pasture	Total
Addingham	***2***			***2***
AD/011	1			1
AD/014	1			1
Bingley	***8***			***8***
BI/009	1			1
BI/013	1			1
BI/015	1			1
BI/016	1			1
BI/017	1			1
BI/028	1			1
BI/035	1			1
BI/038	1			1
Burley	***7***	***1***		***8***
BU/001		1		1
BU/002	1			1
BU/003	1			1
BU/004	1			1
BU/005	1			1
BU/007	1			1
BU/010	1			1
BU/013	1			1
East Morton	***5***			***5***
EM/001	1			1
EM/002	1			1
EM/005	1			1
EM/009	1			1
EM/010	1			1
Haworth		***1***		***1***
HA/016		1		1

SHLAA Reference	Species rich semi-improved	Unimproved grassland	Rush pasture	Total
Ilkley	***9***			***9***
IL/011A	1			1
IL/011B	1			1
IL/012	1			1
IL/014	1			1
IL/016	1			1
IL/018	1			1
IL/020	1			1
IL/029	1			1
IL/032	1			1
Keighley	***1***			***1***
KY/114	1			1
Menston	***9***		***1***	***10***
ME/001	1			1
ME/002	1			1
ME/003	1			1
ME/004			1	1
ME/005	1			1
ME/006	1			1
ME/007	1			1
ME/008	1			1
ME/012	1			1
ME/014	1			1
Oakworth	***2***			***2***
OA/012	1			1
OA/014	1			1
Oxenhope	***1***			***1***
OX/001	1			1
Silsden	***7***			***7***
SI/002				
SI/003	1			1
SI/004	1			1
SI/005	1			1
SI/006	1			1
SI/007	1			1
SI/015	1			1
Grand Total	**51**	**2**	**1**	**54**

9. Settlement Review of SHLAA Sites

Using the results of both the bird and meadow surveys, a map was generated for each of the main settlements in close proximity to the SAC/SPA; see Annex. Mapped data includes the existing settlement boundary, SHLAA sites (buffered to 400m where SPA or wading birds, supporting habitats or the SPA fall within this distance), bird records, and coverage of supporting habitats (rush pasture, species-rich semi-improved grassland and unimproved grassland).

The results show a relatively wide distribution of bird records, especially for curlew and lapwing. In some locations there appears to be an association between higher bird density and features such as waterbodies, proximity to the SAC/SPA, or habitats of better quality. In other locations no such associations are apparent.

We are aware that the Council is eager to revisit the distribution of proposed housing allocations to, wherever possible, avoid direct or indirect impacts of planned development. The following sections discuss each settlement in turn drawing the data that is available to date. Note that this data is limited to the results of bird surveys in 2013 only, and results of habitat surveys, the latter being restricted to priority transects close to existing settlements.

Silsden

- Large areas on the outskirts of Silsden are SHLAA sites, particularly on the north-east, south and south-west fringes of the settlement.
- Areas of species-rich semi-improved grassland that coincide with SHLAA occur to the north-east of the town, and a small meadow north of Hainsworth Road to the south.
- Bird density appears to be relatively low, with a notable congregation of curlew and a few lapwing to the south of the town, overlapping to a degree with SHLAA sites in this area.
- Large SHLAA sites on the west and south west of the settlement have records of SPA birds and supporting habitats within the 400m buffer. One site (SI/015) has records of SPA/SAC birds, breeding waders and supporting habitats within 400m.

Keighley

- SHLAA sites in the Keighley-Riddlesden area predominantly occur within the existing settlement boundary, with some notable exceptions closer to the SAC/SPA to the north of Riddlesden and East Morton.
- Areas of better quality habitat that were recorded are limited, restricted to a few fragments of species-rich semi-improved grassland north of the canal, and some more extensive areas of rush pasture closer to the moors.
- The majority of bird records are focused on the fields closest to the moor, with a few lower density clusters of curlew and lapwing associated with grazing pastures north of Riddlesden and East Morton. Some of these are either within or close to SHLAA sites.
- SHLAA sites that appear to have greatest conflict with bird and supporting habitat records are those to the north of the town closest to the SPA/SAC boundary. Sites that contain records of SPA/SAC birds, breeding waders and supporting habitat occur at Riddlesden (KY/040 and KY/041).

Bingley

- SHLAA sites are mainly with the settlement boundaries although there are some significant potential extensions east of Eldwick towards Baildon Moor, around Micklethwaite, and possible coalescence south from East Morton towards Bingley.
- Some significant patches of species-rich semi-improved grassland occur to the north of Eldwick and Bingley, often including and surrounded by more extensive coverage of rush pasture associated with streams and becks.
- Bird records – mainly curlew and lapwing with one or two golden plover are largely associated with Baildon Moor and the area of higher ground south of Graircliffe Reservoir. An area between Walsh Lane and Heights Lane north of The Greenwood appears favoured by lapwing.
- SHLAA sites to the north of Bingley towards East Morton have most conflict with bird and supporting habitat records.

Menston and Burley

- There are a number of large SHLAA sites in this area, particularly to the north, north-west and south-west of Menston, and south, south-west and north-west of Burley in Wharfedale. A further significant SHLAA is located adjacent to the SAC/SPA at Burley Woodhead.
- Much of the area to the west of these two settlements was also noted as species-rich semi-improved grassland and/or rush pasture, and wet meadows associated with water bodies.
- There are some concentrations of bird activity in these areas, particularly around Reevadale and Burley Woodhead. Bird density is also higher in the meadows north of the disused railway and south of A660 east of Burley.
- SHLAA sites with records of SPA/SAC birds and breeding waders within 400m occur all around the settlement but with particular concentrations to the west and north of the settlement. ME/004 is located within 400m of the SPA and SAC boundary and has records of SPA/SAC birds and supporting habitats within 400m.

Ilkley

- A series of species-rich semi-improved grasslands were recorded running east from Stead towards Burley. There is a reasonably high abundance of mainly curlew in this area as well, with even higher densities of curlew and lapwing to the west of Stead towards to the SAC/SPA.
- Another conglomeration of lapwing and curlew occurred on a large SHLAA site south of Five Oaks House, east of Ilkley, although the habitats here were generally poor quality improved grazing pasture.
- Many of the other SHLAA around Ilkley are either within the settlement boundary or tucked into the fringes, and without notable habitats or high abundance of bird records.
- A series of small SHLAA sites along the southern side of the town are within 400m of the SPA/SAC boundary. To the east of the town are a number of SHLAA sites with records of SPA/SAC birds,

breeding waders and supporting habitats within 400m of the site boundaries. To the west of the town are SHLAA sites with records of curlew and supporting habitat within 400m of the site boundaries.

Addingham

- Records of curlew and lapwing around Addingham tend to be focused on higher ground to the south and west of the town, whereas many of the SHLAA sites are adjacent to the existing settlement boundary north of the A65.
- An extensive area of species-rich semi-improved grassland along Lippersley Lane and Addingham Middle Moor is attracting a greater abundance and diversity of birds including curlew, lapwing and golden plover. These are around the area of marsh known as Brown Bank Marsh, a SEGI.
- There are numerous conflicts between SHLAA sites which have curlew records within 400m around the outskirts of Addingham. Two SHLAA sites on the north of the settlement (AD/004 and AD/011) have records of SPA/SAC birds, breeding waders and supporting habitat within 400m of the sites.

Oakworth

- Similarly, an area of species-rich semi-improved grassland and rush pasture west of Oakworth supports a reasonable abundance of birds.
- Other than this, SHLAA sites in this area do not appear to coincide with either good quality habitats or areas of particular bird density.
- SHLAA sites on the western side of the settlement have the most potential conflict with birds and supporting habitats, in particular OA/005 and OA/014 where foraging curlew, lapwing and areas of species rich semi-improved grassland all occur within 400m of the sites.

Haworth

- Some sections of good quality habitat occur around Haworth, notably unimproved grassland along the River Worth, and acid grassland and heathland mosaic at Penistone Hill.
- Several sections of species rich unimproved grassland and rush pasture occur along the Worth Valley to the west of the town, however, there seems to be little in the way of bird association with these areas, the birds tending instead to prefer habitats further west closer to the SAC/SPA.
- A grouping of curlew and lapwing was recorded around Old Oxenhope Farm, the northern part of which is also a SHLAA site.
- Although supporting habitat occurs widely around the settlement it is only the SHLAA sites on the southern side of the settlement that appear to conflict with records of SPA/SAC bird species. Sites HA/110 – HA113 in particular have records of curlew, lapwing and areas of rush pasture within 400m of the site boundaries.

Oxenhope

- Very few areas of notable habitat were recorded around Oxenhope.

- There was a similarly low abundance of bird records, with far higher numbers being recorded away from the town to the west and south in closer proximity with the SAC/SPA.
- SHLAA site OX/001 has records of a number of SPA/SAC and breeding wading birds in close proximity. These are birds visiting the shores of the Leeming Reservoir and include lapwing, redshank and curlew. SHLAA sites on the northern edge of the settlement also have records of curlew foraging within 400m of the site boundary.

Denholme

- There are some larger SHLAA sites to the west and south of Denholme, however, habitats were generally not noteworthy and very few birds were recorded.
- A grouping of curlew and lapwing occurred around Lower Shay Farm to the west, with further groupings closer to the reservoir and SAC/SPA to the south.
- There are records of curlew associated with many of the SHLAA sites around Denholme, but most potential conflicts occur in relation to sites on the western edge of the settlement (DH/002 – DH/006) where records of foraging curlew, lapwing and areas of rush pasture occur within 400m of the sites.

Thornton

- There are a number of SHLAA sites towards the western end of Thornton, however, notable habitats are restricted to a few pockets of rush pasture and the abundance of bird records was low.
- Only two sites (TH/005 and TH/021) have potential conflicts with SAC typical species, with records of low numbers of curlew and lapwing foraging in rush pastures to the west of the settlement.
- Further potential conflicts with SPA/SAC bird species and breeding waders occur to the south of Thornton around Queensbury. SHLAA site QB/024 in particular has records of curlew, lapwing and redshank within 400m of the site boundary. Sites QB/013, QB/014a and QB/14b also have records of foraging curlew and areas of rush pasture within 400m of the site boundary.

10. Concluding Remarks

In conclusion, on analysing the 2013 bird and habitat survey data, there do not appear to be any clear patterns of bird association with habitats of greater botanical diversity. There are some instances of greater bird abundance in areas of rush pasture or where agricultural improvement has been less intense, but this is by no means a uniform pattern. By the same token, there are a number of SHLAA sites that did not feature particularly interesting or diverse habitats but nonetheless supported a reasonable abundance of birds. Despite this, it would seem prudent to concentrate proposed residential allocations on areas that feature neither high numbers of bird records nor good quality habitats.

Stepping back from the settlement-by-settlement analysis, some clearer patterns of bird distribution are discernible. Areas of higher bird abundance tend to be located away from existing settlements, closer to the SAC/SPA, waterbodies or areas of higher ground. This may be a reflection of the relatively lower levels of human disturbance that are likely to occur in such locations. Similarly, where settlement boundaries are already close to the SAC/SPA boundary, the potential for bird displacement as a result of development would seem to increase.

For example, a number of SHLAA sites in the following areas could be problematic: along the southern boundary of Rombalds Moor to the north of Riddlesden, East Morton and to a lesser extent Bingley; to the south and east of Silsden; to the south of Addingham; east of Ilkley; and west of Burley and Menston. Towards the south-west of the district the settlements tend to be further away from the SAC/SPA and feature a lower number of SHLAA sites, however, there is still potential for conflicts especially around Denholme, Oakworth and Haworth.

The distribution of housing numbers should be mindful that the present analysis has focused primarily on areas of greater bird abundance, habitats which may have a role in supporting the function of the SAC/SPA, and those in close proximity to the settlements discussed above. Other issues of urbanisation addressed by the wider HRA, such as increasing visitor activity, risk of fire, predation, fly-tipping and so on, still require attention in the HRA and hence have an influence on the spatial strategy.

Annex

Annex Table: SHLAA sites with records of SAC typical bird species within 400m

Ref	Area (ha)	Settlement	Address
AD/001	0.63	Addingham	Turner Lane
AD/012	0.94	Addingham	Moor Lane, Addingham
AD/002	1.08	Addingham	Moor Lane, Addingham
AD/004	16.45	Addingham	Main Street/ Addingham Bypass (Southfield Farm), Addingham
AD/003	1.68	Addingham	Main Street/Southfield Terrace
AD/010	1.91	Addingham	Ians Croft
AD/007	3.07	Addingham	Stockinger Lane, Addingham
AD/009	0.83	Addingham	Main Street, Addingham
AD/017	5.72	Addingham	Ilkley Road, Addingham
AD/008	4.59	Addingham	
AD/005	4.61	Addingham	Main Street
AD/013	1.36	Addingham	Bolton Road, Addingham
AD/016	2.03	Addingham	Manor Garth, Addingham
AD/014	0.55	Addingham	Back Beck Lane, Addingham
AD/015	0.61	Addingham	Sugar Hill
AD/011	1.39	Addingham	Chapel Street
BA/005	8.32	Baildon	West Lane, Baildon
BA/009	3.10	Baildon	West Lane
BA/004	2.12	Baildon	The Rowans, Baildon
BA/018	5.05	Baildon	
BI/014	0.91	Bingley	Heights Lane (west side) Eldwick
BI/015	0.63	Bingley	Otley Road, Eldwick, Bingley
BI/009	1.58	Bingley	Greenhill Drive, Micklethwaite
BI/008	16.89	Bingley	Sty Lane, Bingley
BI/006	1.46	Bingley	Keighley Road
BI/007	0.76	Bingley	Micklethwaite Lane (Airedale Mills), Crossflatts
BI/032	0.31	Bingley	Micklethwaite Lane, Crossflatts
BI/013	1.19	Bingley	Heights Lane (west side) Eldwick
BI/028	0.21	Bingley	The Green off College Road
BI/035	0.32	Bingley	Lady Lane
BI/011	0.79	Bingley	Greenhill Barn, Lady Lane
BI/029	0.08	Bingley	Keighley Road, Crossflatts
BI/038	0.30	Bingley	Marley Court
BU/001	14.95	Burley	Ilkley Road, Burley

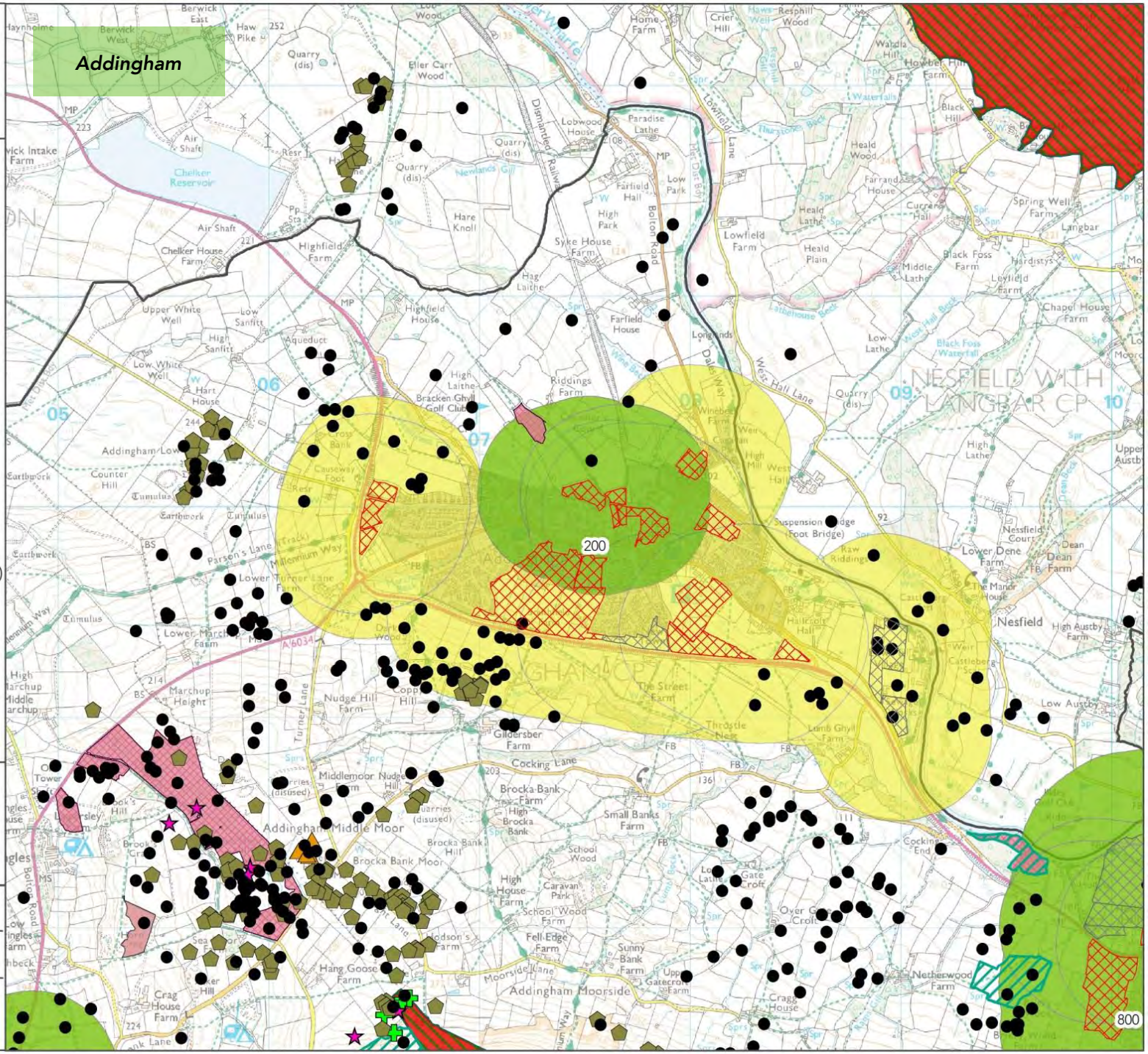
Ref	Area (ha)	Settlement	Address
BU/005	1.09	Burley	Banner Grange, Bradford Road
BU/007	0.65	Burley	Bradford Road
BU/010	1.56	Burley	East End Allotments, Oak Avenue, Burley
BU/008	2.01	Burley	Main Street/A65
BU/004	2.68	Burley	Hag Farm Road, Burley in Wharfedale
BU/002	10.51	Burley	Menston Old Lane, Burley in Wharfedale
BU/013	3.15	Burley	Scalebor House Moor Lane
BU/011	2.89	Burley	Greenholme Mills, Great Pasture Lane
BU/003	1.11	Burley	Moor Lane resource centre, Moor Lane
DH/009	8.04	Denholme	Beech Avenue, Keighley Road, Denholme
DH/011	1.94	Denholme	Halifax Road, Denholme Gate
DH/015	0.27	Denholme	Halifax Road, Denholme Gate
DH/010	3.11	Denholme	Halifax Road, Denholme Gate
DH/003	1.23	Denholme	New Road/Long Causeway
DH/005	5.96	Denholme	Old Road
DH/002	3.14	Denholme	Main Road/New Road
DH/013	0.08	Denholme	Stradmore Road
DH/016	4.38	Denholme	Station Road
DH/006	4.26	Denholme	Long Causeway
DH/012	0.69	Denholme	Haworth Road, Denholme
DH/008	0.88	Denholme	Heatherlands Avenue
DH/001	0.41	Denholme	Seven Acres
DH/007	5.49	Denholme	Hill Top Farm
DH/004	0.51	Denholme	Foster View
DH/014	0.07	Denholme	Keighley Road
EM/008	1.35	East Morton	Green End Road
EM/004	2.73	East Morton	Street Lane
EM/007	0.79	East Morton	High Stead, Street Lane
EM/006	0.37	East Morton	The Cloisters, Street Lane
EM/003	0.49	East Morton	Highfield Close, East Morton
EM/005	1.78	East Morton	Morton Hall, Morton Lane
EM/001	0.67	East Morton	Dimples Lane
EM/010	3.94	East Morton	Morton Lane/Hawthorne Way
EM/009	3.40	East Morton	
EM/011	1.63	East Morton	Carr Lane
EM/002	1.54	East Morton	Morton Lane
HA/013	6.20	Haworth	Bramwell Drive, Marsh Lane. Haworth

Ref	Area (ha)	Settlement	Address
HA/012	1.94	Haworth	Sun Street
HA/011	1.21	Haworth	Sun Street, Haworth
HA/010	1.16	Haworth	Ivy Bank Lane, Haworth
HA/007	0.55	Haworth	Portland Street
HA/015	0.37	Haworth	Brow Top Road, Haworth
HA/014	4.28	Haworth	Weavers Hill, Haworth
HA/001	3.15	Haworth	Worstead Road, Crossroads Haworth
HA/017	0.07	Haworth	Chapel Works, Station Road
HA/008	0.61	Haworth	Ashlar Close
HA/018	0.07	Haworth	Cliffe Street
HA/002	1.07	Haworth	Jacobs Lane
HA/003	0.87	Haworth	Lees Lane, Crossroads
HA/019	0.97	Haworth	Hebden Road, Crossroads
HA/016	1.92	Haworth	Baden Street
HA/004	0.97	Haworth	Lees Lane, Crossroads
HA/006	2.70	Haworth	Mytholmes Lane, Haworth
HA/005	1.63	Haworth	Ebor Mills, Ebor Lane
IL/012	7.82	Ilkley	Skipton Road
IL/016	23.85	Ilkley	Hadfield Farm, Skipton Road, Ilkley
IL/032	3.54	Ilkley	Skipton Road
IL/011A	0.82	Ilkley	
IL/011B	1.18	Ilkley	
IL/015	3.10	Ilkley	Slates Lane
IL/019	4.45	Ilkley	Hardings Lane
IL/031	6.50	Ilkley	Ilkley Water Treatment works, Ashlands Road
IL/021	1.67	Ilkley	Hangingstone Road.
IL/009	7.18	Ilkley	Ben Rhydding Drive, Wheatley Grove
IL/020	8.50	Ilkley	Ben Rhydding Drive
IL/017	1.72	Ilkley	Coutances Way, Ilkley
IL/014	25.65	Ilkley	Coutances Way
IL/010	0.37	Ilkley	Cheltenham Ave
IL/013	1.28	Ilkley	Wheatley Lane, Ben Rhydding
IL/022	1.10	Ilkley	
IL/002	1.47	Ilkley	Valley Drive
IL/027	0.43	Ilkley	Station Approach
IL/025	0.20	Ilkley	Queens Road
IL/023	3.37	Ilkley	Grammar School, Cowpasture Road, Ilkley

Ref	Area (ha)	Settlement	Address
IL/030	0.27	Ilkley	Ben Rhydding Road
KY/114	1.52	Keighley	Oldfield Water Treatment works, Oldfield Lane, Keighley
KY/039	5.35	Keighley	Banks Lane Riddlesden
KY/041	8.32	Keighley	Ilkley Road, Riddlesden, Keighley
KY/040	7.06	Keighley	Ilkley Road, Riddlesden (Barley Cote Farm)
KY/042	0.65	Keighley	Barley Cote Road, Riddlesden
KY/038	2.02	Keighley	Western Avenue, Riddlesden
KY/046	5.31	Keighley	Carr Bank Riddlesden
KY/047	0.52	Keighley	Carr Bank Riddlesden
KY/037	1.92	Keighley	Scott Lane, Riddlesden
KY/049	0.41	Keighley	Bradford Road Riddlesden
KY/050	1.49	Keighley	Bradford Road, Riddlesden
ME/005	4.36	Menston	Beech Close, Menston
ME/008	43.08	Menston	Bleach Mill Lane, Menston
ME/012	0.56	Menston	Reevadale, Clarence Drive
ME/004	9.98	Menston	Crag Top Farm, Burley Woodhead
ME/007	15.19	Menston	Burley Road, Menston
ME/003	5.44	Menston	Derry Hill, Menston
ME/014	0.95	Menston	Whiddon Croft
ME/006	1.72	Menston	The Croft, Burley Road,
OA/005	4.87	Oakworth	Denby Hill Road, Oakworth
OA/014	2.96	Oakworth	Boston Hill Low Bank Lane Oakworth
OA/004	0.76	Oakworth	Hill Top Road, Oakworth
OA/003	1.41	Oakworth	Waterwheel Lane
OA/010	0.22	Oakworth	15 Church Street Colne Road
OA/012	0.11	Oakworth	Griffe Gardens, Low Bank Lane
OA/009	0.89	Oakworth	Vale Mills, Mytholme Lane,
OA/013	0.26	Oakworth	Providence Lane Oakworth
OA/002	1.06	Oakworth	Pasture Lane, Oakworth
OA/001	1.37	Oakworth	Providence Lane, Providence Farm, Oakworth
OA/006	0.45	Oakworth	Moorfield Drive, Oakworth
OX/001	0.98	Oxenhope	Denholme Road
OX/004	1.72	Oxenhope	Church Street, Hebden Bridge Road
OX/005	0.38	Oxenhope	21A Crossfield Road
OX/003	0.84	Oxenhope	Crossfield Road
OX/002	0.51	Oxenhope	Denholme Road, Oxenhope
QB/022	1.79	Queensbury	Cricket Ground, Mill Lane, Mountain

Ref	Area (ha)	Settlement	Address
QB/013	2.86	Queensbury	Cross Lane/Old Guy Road
QB/014a	3.80	Queensbury	Old Guy Road, Fleet Lane
QB/014b	19.28	Queensbury	Old Guy Road, Fleet Lane
QB/024	2.46	Queensbury	Perseverance Lane/Green Lane, Mountain
QB/005	0.53	Queensbury	Roper Lane/Cross Lane
SI/003	20.44	Silsden	Brownbank Lane, Silsden
SI/006	8.97	Silsden	Hainsworth Road
SI/007	13.13	Silsden	Keighley Road, Belton Road
SI/015	11.44	Silsden	
SI/002	1.43	Silsden	Breakmoor Avenue, Silsden
SI/004	8.51	Silsden	Bolton Road Brown Bank Lane
SI/001	1.36	Silsden	North Dene Road
SI/013	5.99	Silsden	Sykes Lane
SI/012	2.97	Silsden	Sykes Lane, Silsden
SI/005	3.47	Silsden	Daisy Hill
TH/005	2.11	Thornton	Cragg Lane, Thornton Road
TH/021	0.50	Thornton	Former Imperial restaurant, Thornton Road
TH/002	2.11	Thornton	Close Head Lane,
TH/003	5.02	Thornton	Thornton Road
TH/001	2.53	Thornton	Thornton Road

SPA/Typical Birds, Supporting Habitats and SHLAA Sites



- SHLAA sites (in trajectory)
- SHLAA sites (not in trajectory)
- SHLAA 400m with SPA birds & waders
- SHLAA 400m with supporting habitat
- SHLAA 400m with SPA
- Curlew (not flying)
- Dunlin
- Golden plover
- Lapwing (not flying)
- Merlin
- Redshank
- Short-eared owl
- Snipe
- Rushpasture (all coverage)
- Spp. rich semi-improved (all coverage)
- Unimproved (all coverage)
- SAC
- SPA
- SSSI
- Settlements (with residential units)
- CBMDC outline

0 0.5 1 Kilometers

N

ENVIRONMENTAL CONSULTING
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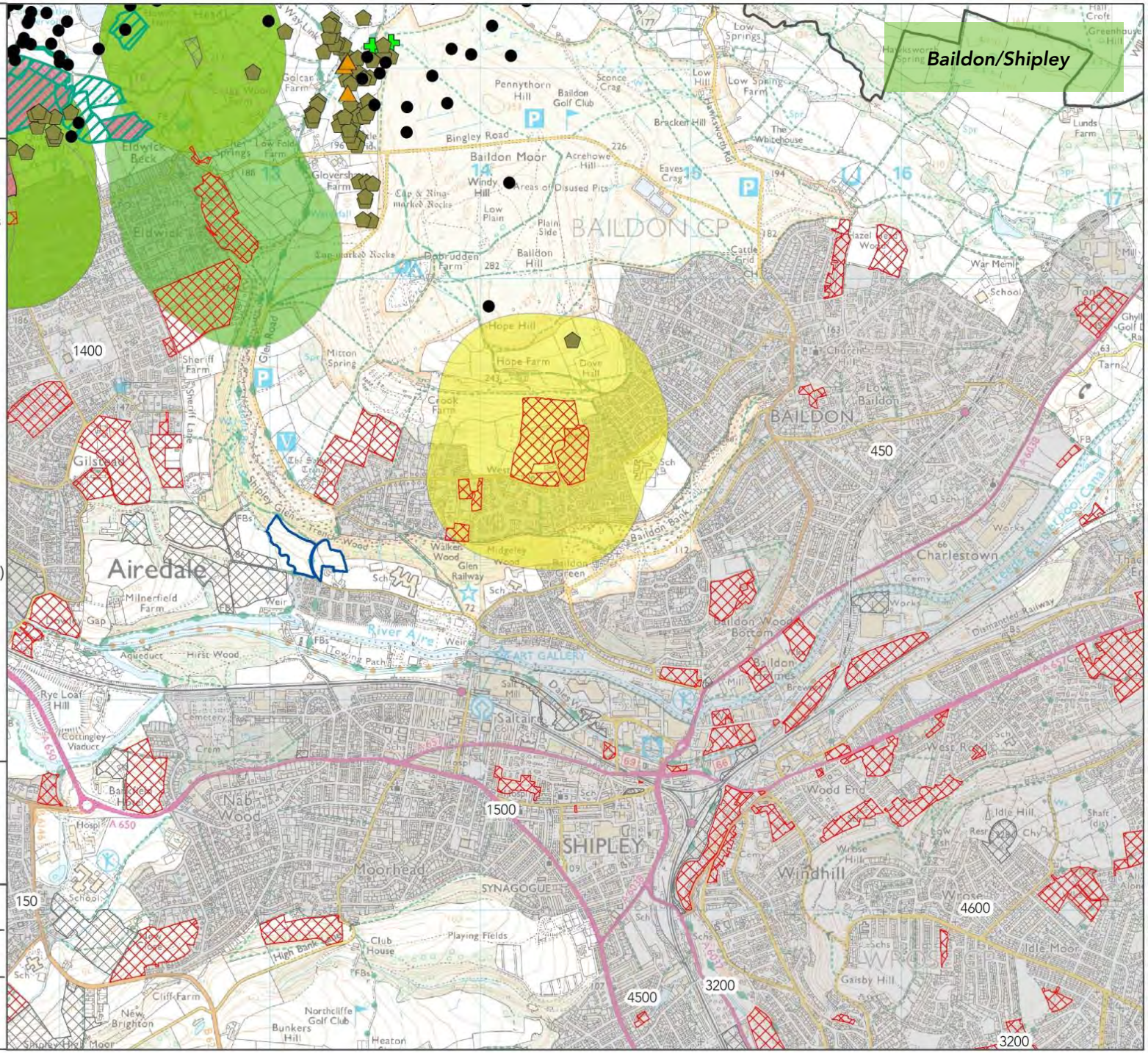
BN2 4QN

Scale	Date
1: 24,000	Oct2013
Created by	**Reviewed by**
JC/NP	NP

Drawing number
UE-0126_Birds-Habs_Series_2_131031

SPA/Typical Birds, Supporting Habitats and SHLAA Sites



- SHLAA sites (in trajectory)
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- Lapwing (not flying)
- Merlin
- Redshank
- Short-eared owl
- Snipe
- Rushpasture (all coverage)
- Spp. rich semi-improved (all coverage)
- Unimproved (all coverage)
- SAC
- SPA
- SSSI
- Settlements (with residential units)
- CBMDC outline

0 0.5 1 Kilometers

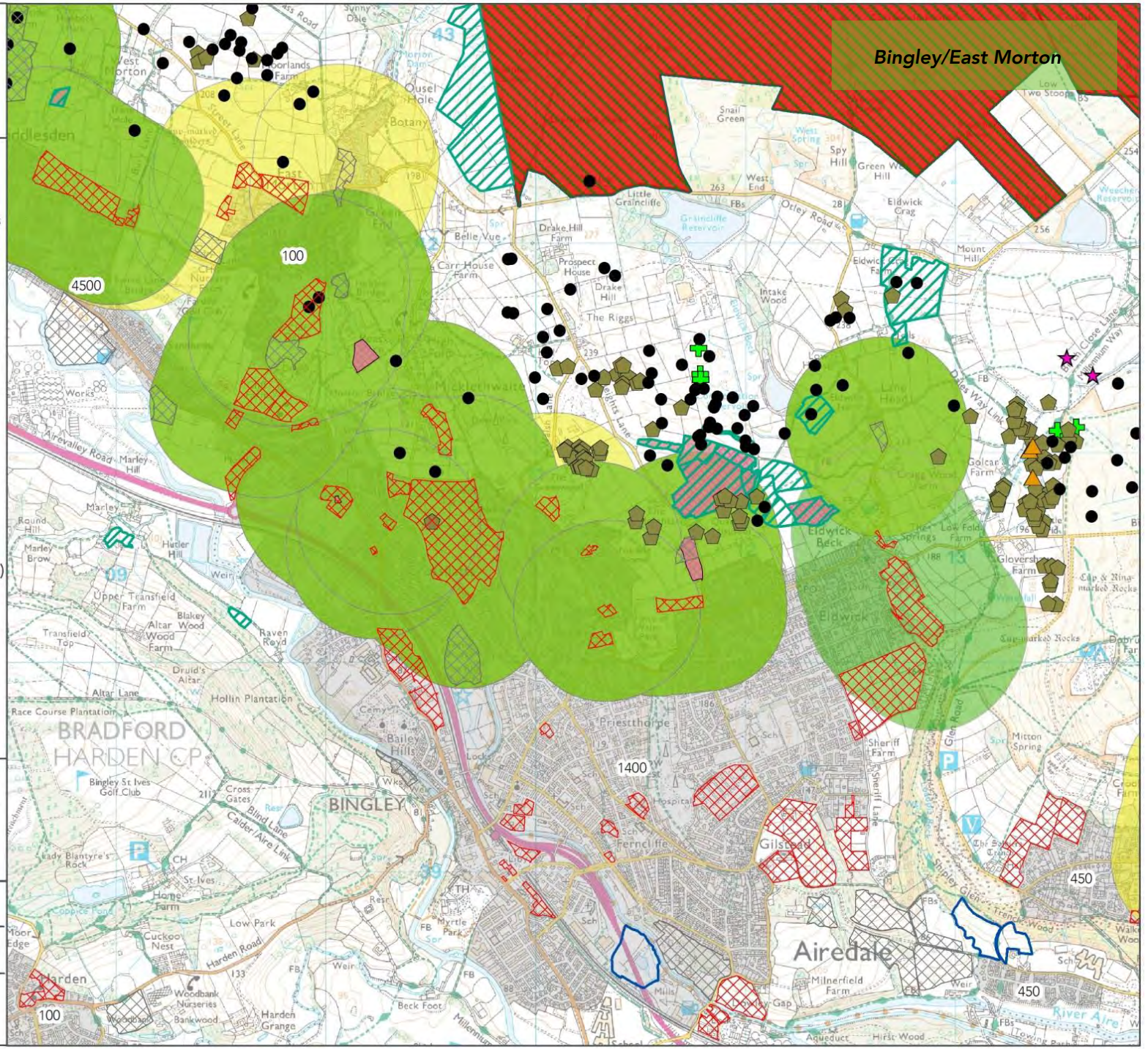
N

ENVIRONMENTAL CONSULTING
Unit 5 Westergate Business Centre
Brighton
BN2 4QN

Scale	Date
1: 24,000	Oct2013
Created by	**Reviewed by**
JC/NP	NP

Drawing number
UE-0126_Birds-Habs_Series_2_131031

SPA/Typical Birds, Supporting Habitats and SHLAA Sites



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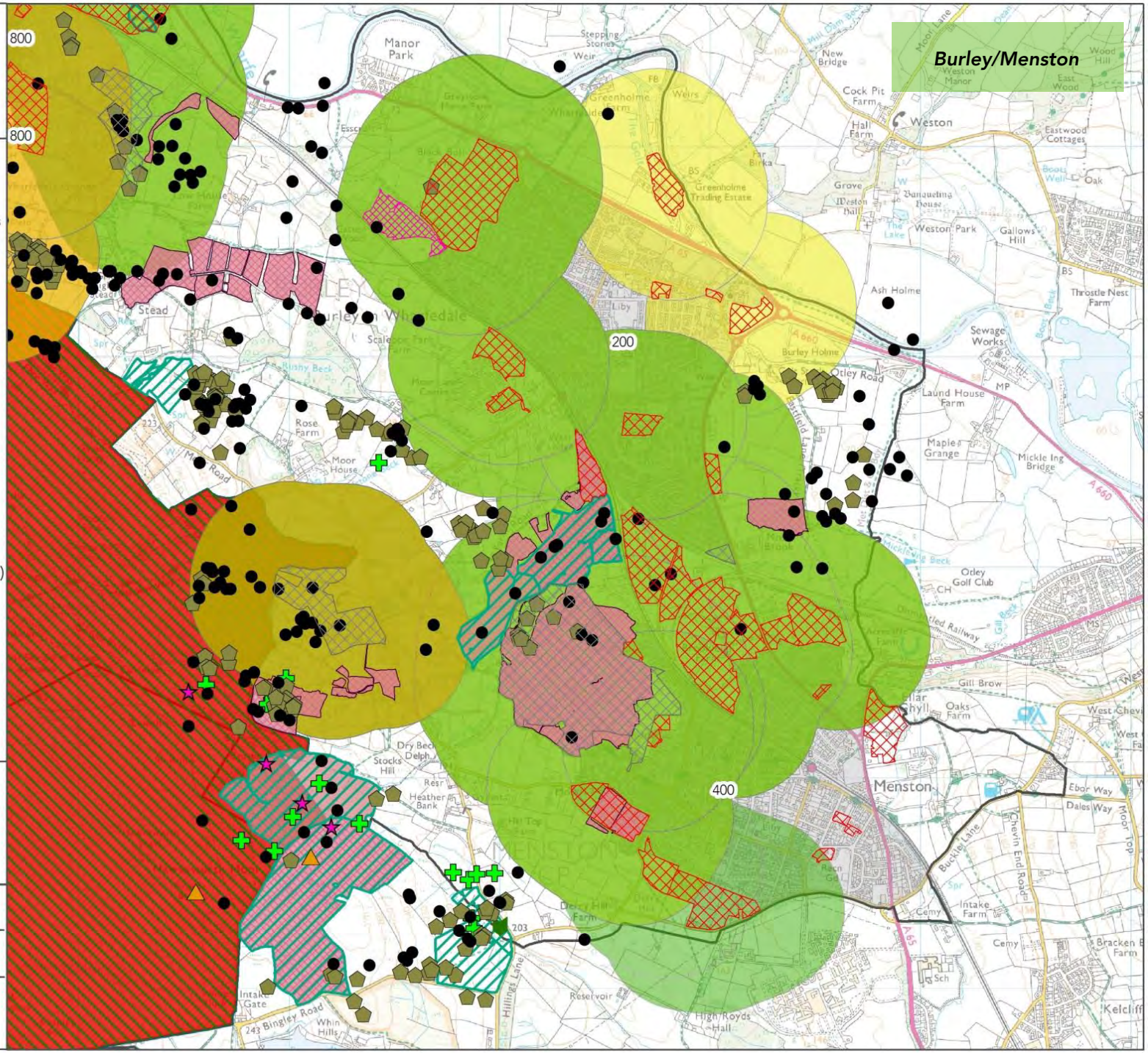

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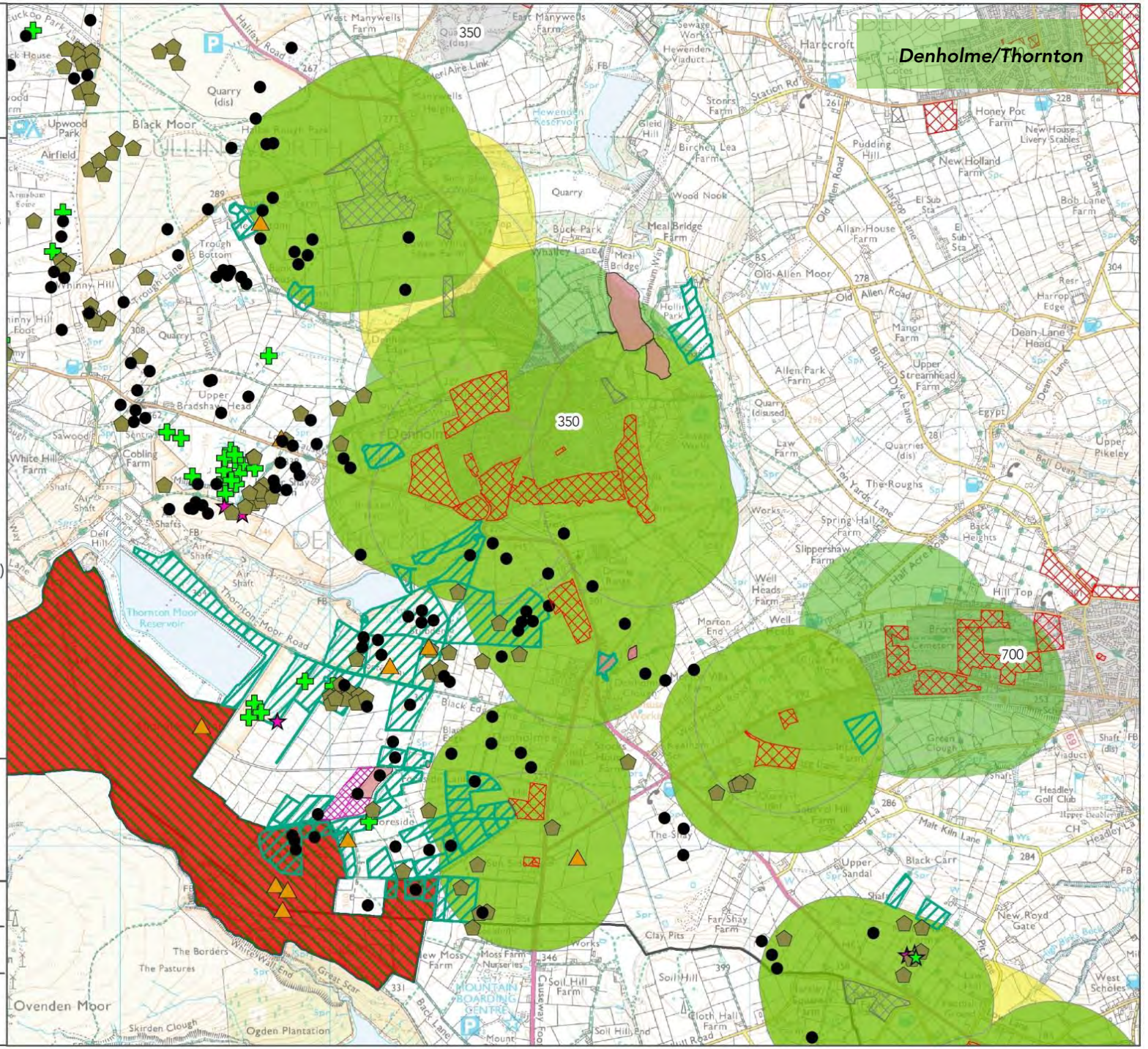

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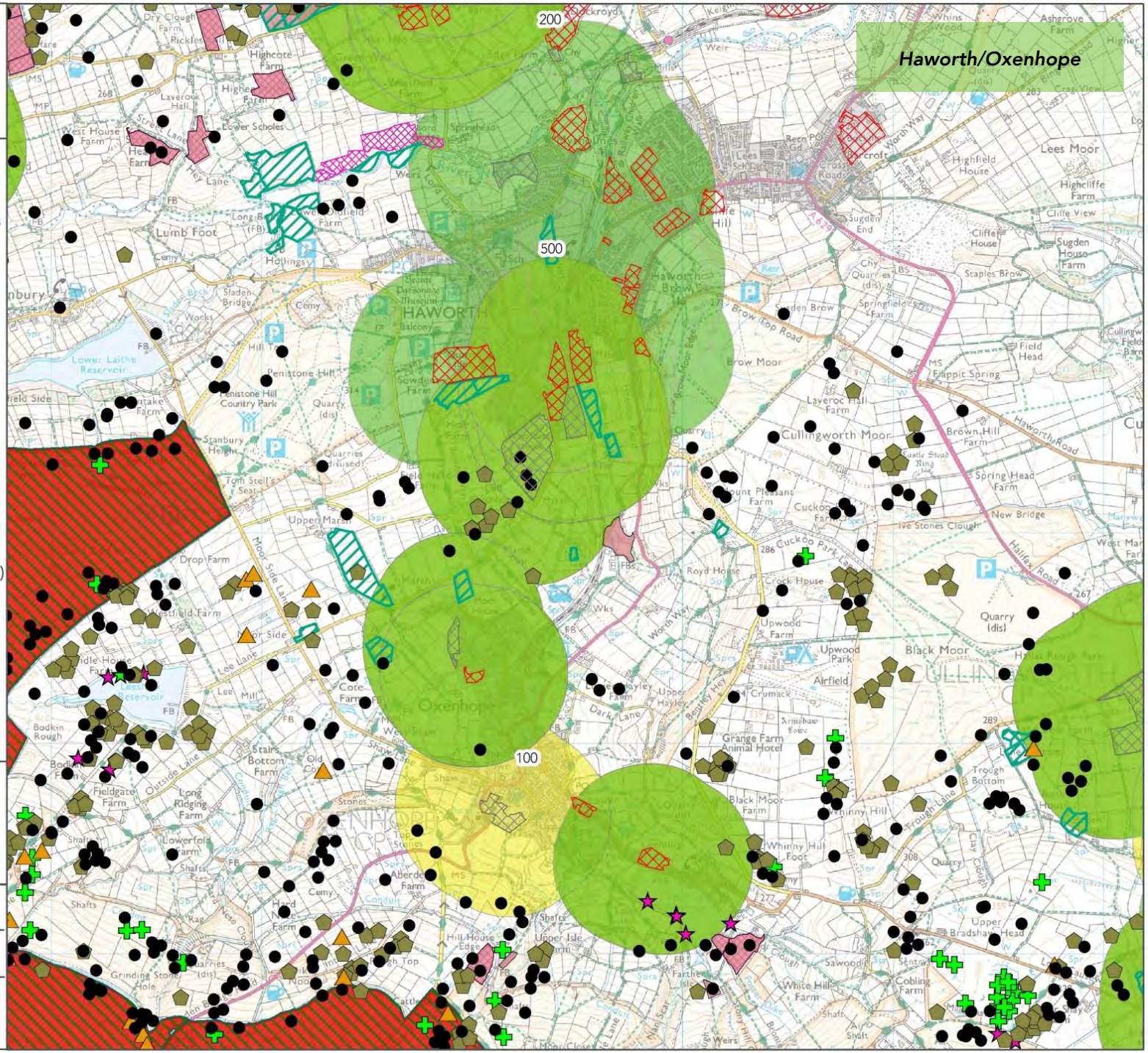

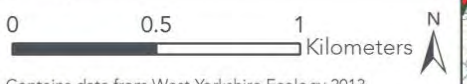

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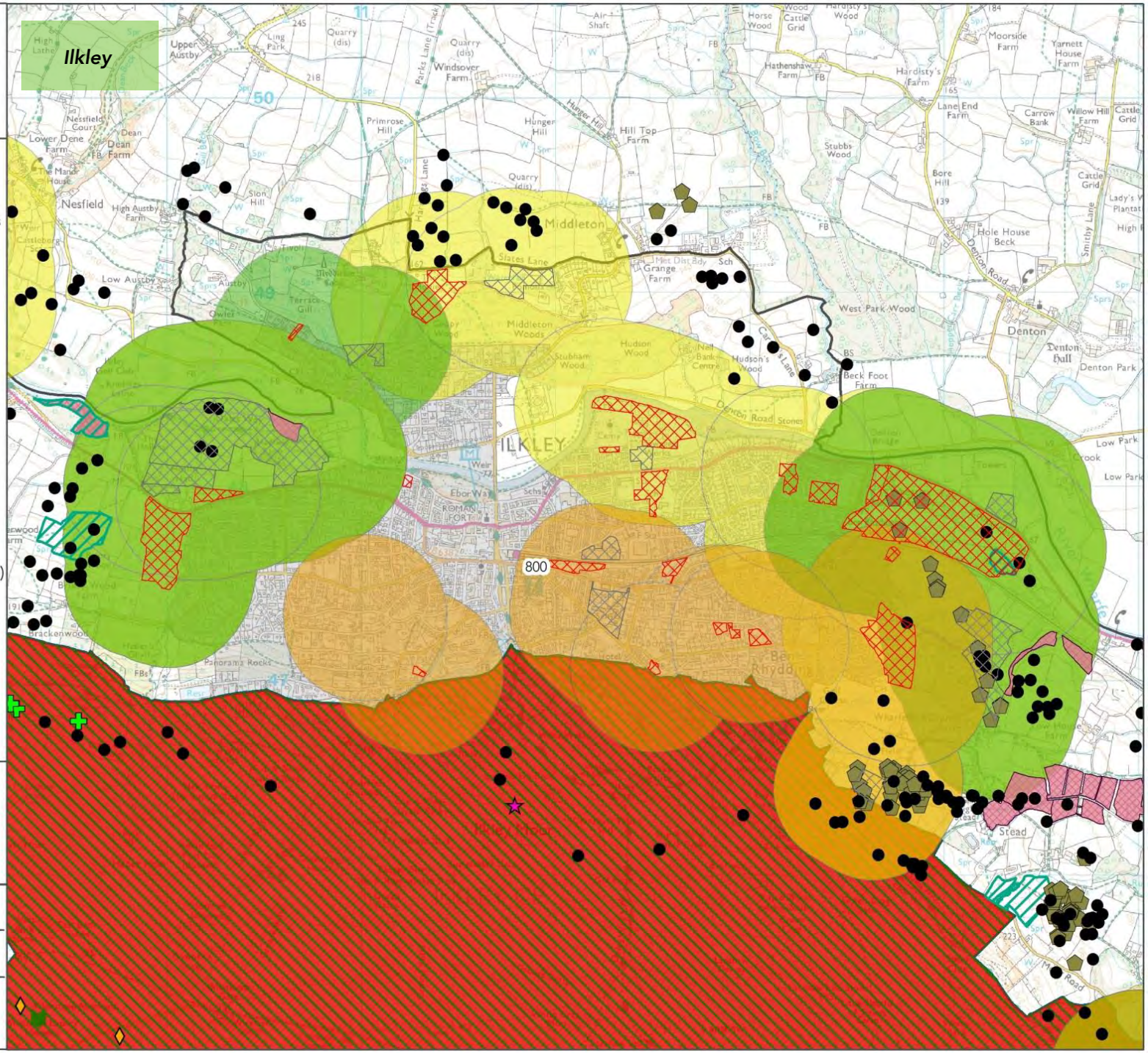

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- Unimproved (all coverage)
- SAC
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- Settlements (with residential units)
- CBMDC outline

0 0.5 1 Kilometers

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Scale	Date
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Drawing number
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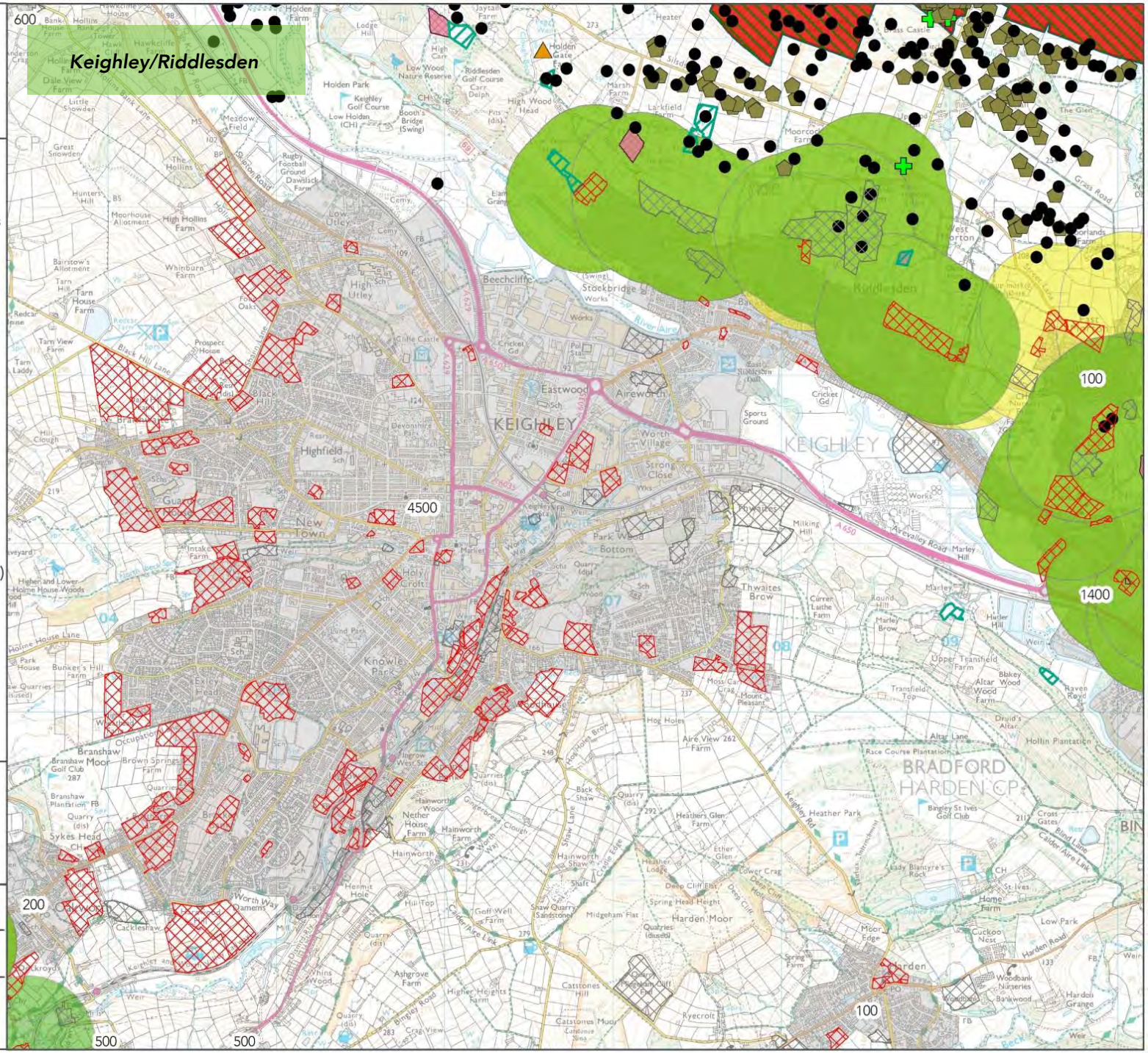
SPA/Typical Birds, Supporting Habitats and SHLAA Sites



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- Unimproved (all coverage)
- SAC
- SPA
- SSSI
- Settlements (with residential units)
- CBMDC outline

0 0.6 1.2 Kilometers

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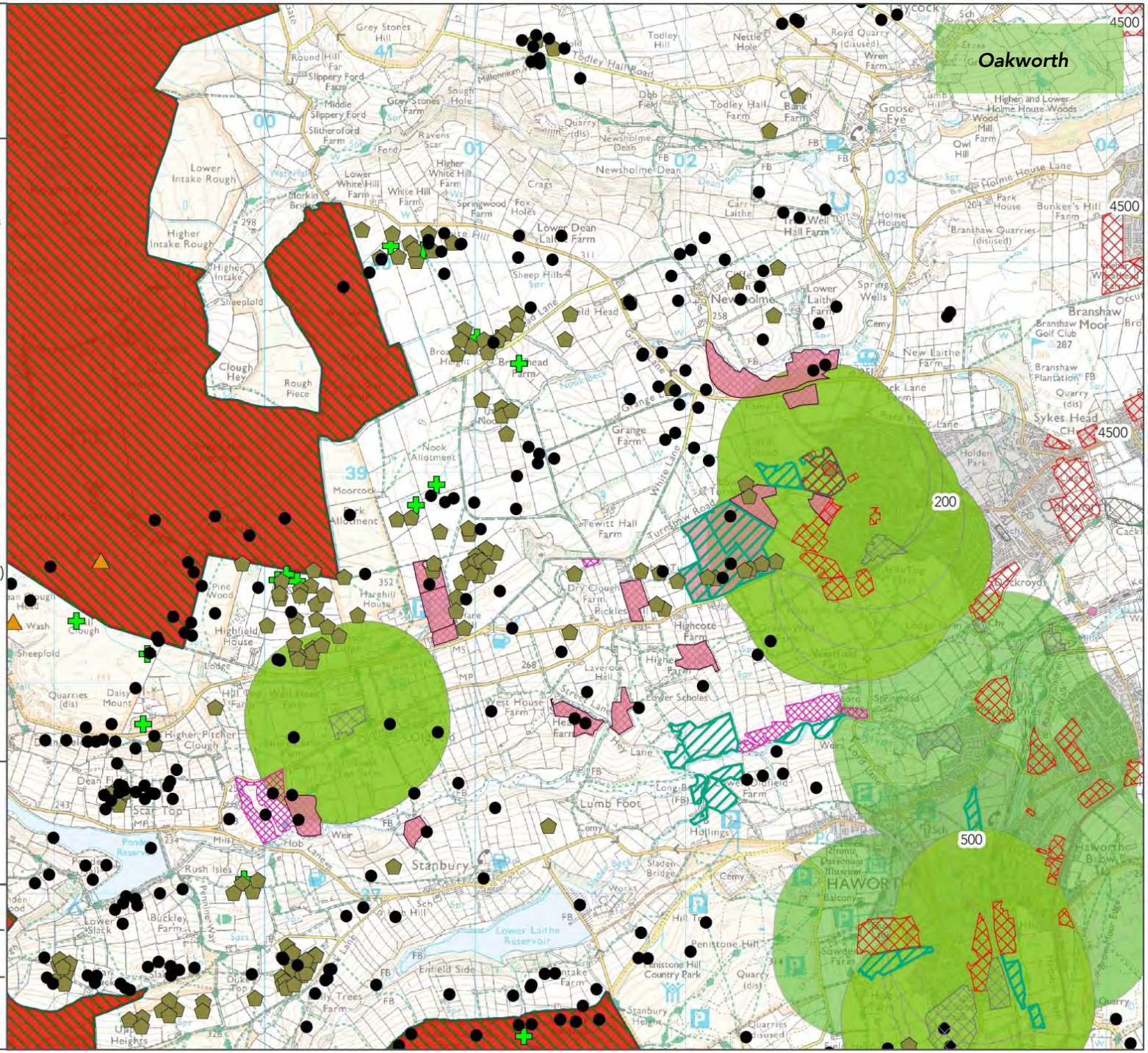

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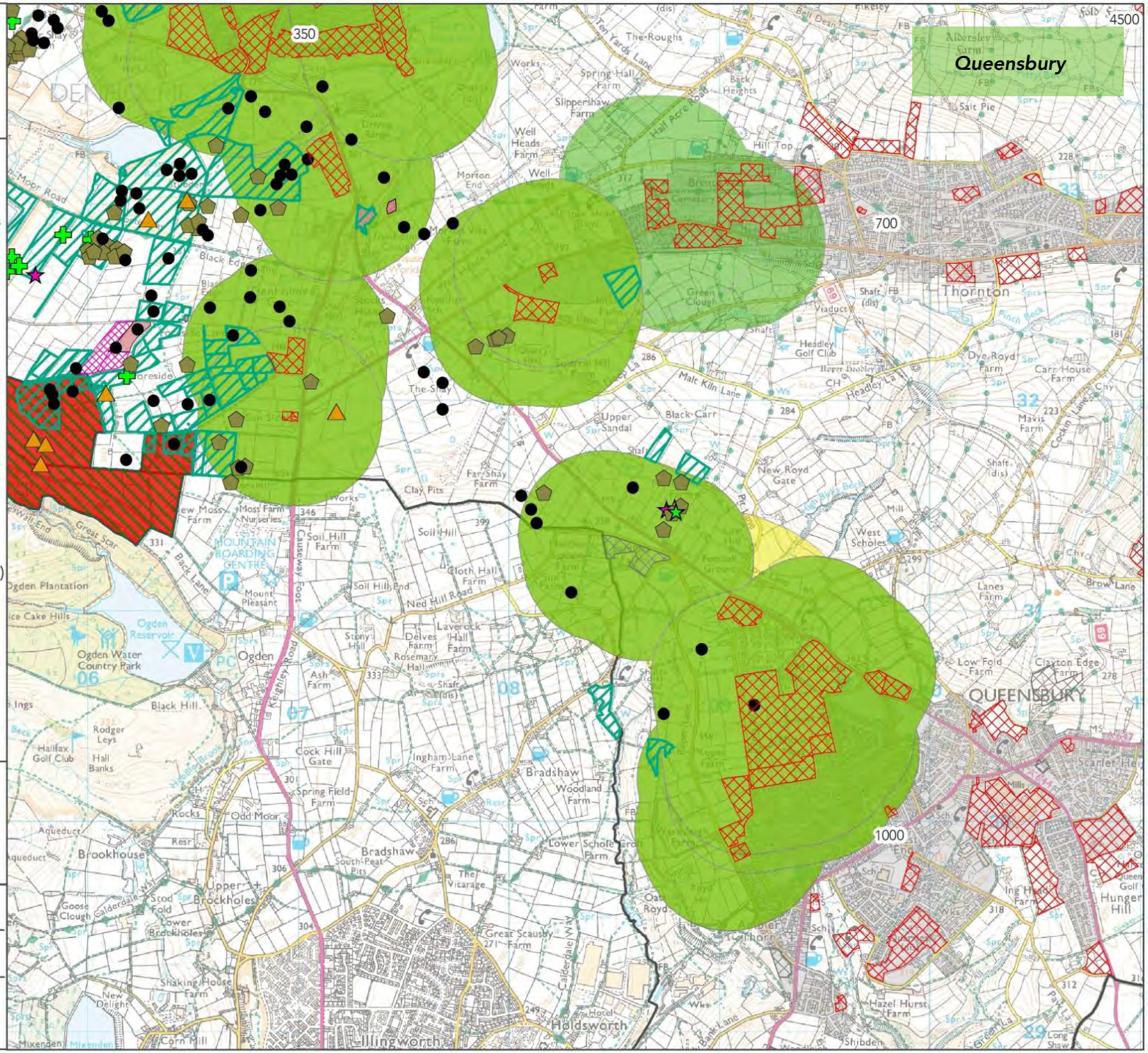

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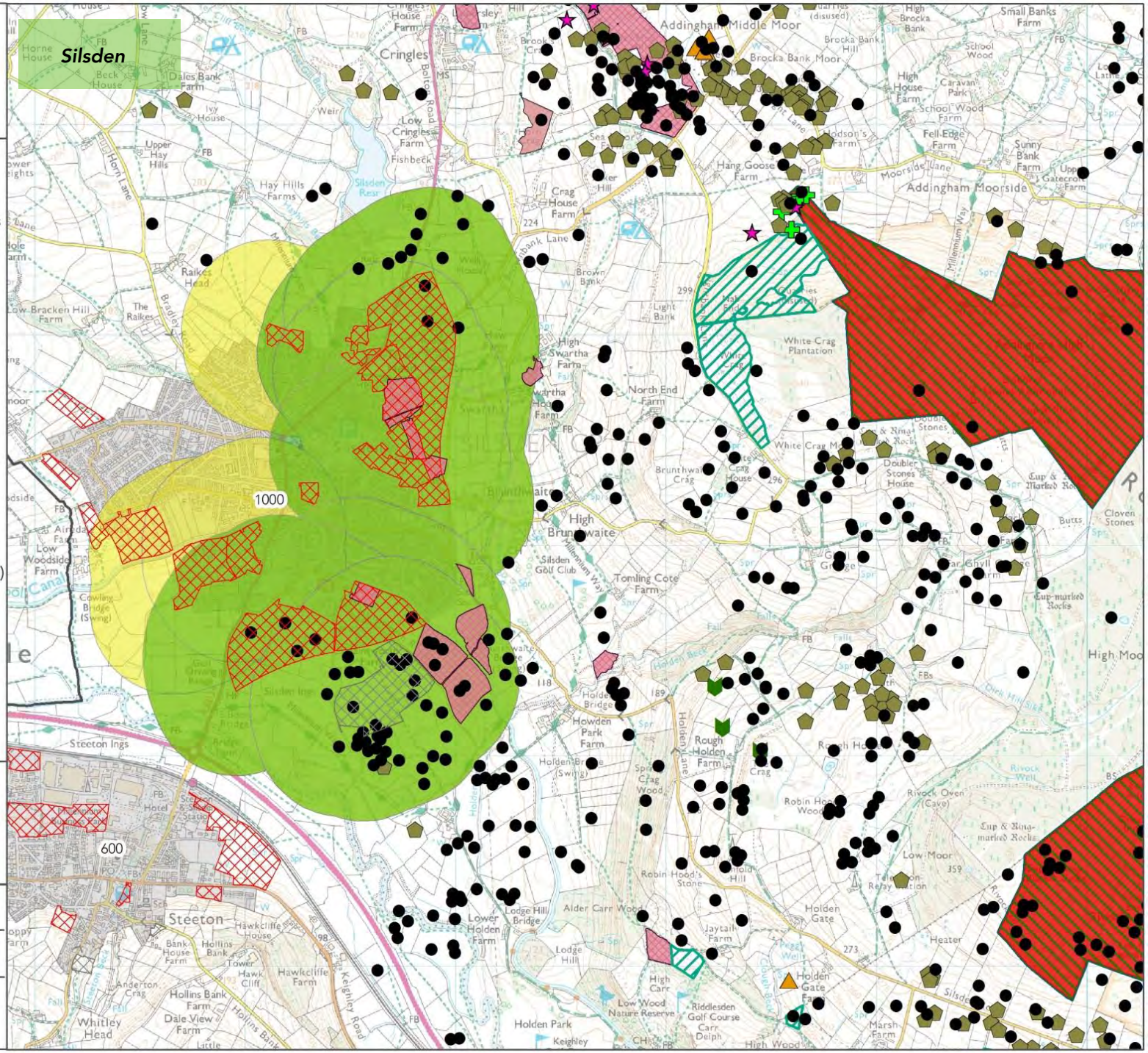

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Appendix 6

Appendix 6

Impacts of Human Recreational Disturbance on Upland Birds: Review of Existing Literature

Introduction

A recent review of the Bradford Core Strategy Development Plan indicated the potential for conflict between housing numbers in the area and the nearby South Pennine Moors Phase 2 SPA (Special Protection Area). The most pressing point of concern is the potential increase in usage of the SPA area by an increasing human population, e.g. hikers and dog walkers.

With this in mind, a trawl of the available scientific literature was undertaken. This uncovered a total of 11 journal papers, one existing systematic review of literature, and one assessment and review of upland bird survey data.

These documents were assessed and the results are summarised in this document.

Review

In two studies published, respectively, in 1987 and 1989, Yalden & Yalden attempted to quantify the extent of visitor numbers in areas of the Peak District National Park, and the subsequent impact on breeding golden plover *Pluvialis apricaria.* Initial investigations showed a possible disturbance to the species during breeding associated with human recreational use, in particular to poorly controlled dogs. The subsequent study did, however, show that golden plover adults were highly resistant to disturbance when incubating eggs, allowing approaches to within 10 metres before flushing, and being generally unaffected by high usage of nearby footpaths during the traditionally busy weekend periods.

It was shown that potential impacts might occur in the pre-incubation and post-hatching periods. Adults with chicks tended to alarm call as soon as a human approached to within 200 metres, and persistent human presence could lead to the adults not attending to the chicks for a prolonged period. Similarly, adults were likely to establish nests further away from high-usage areas even when suitable nesting habitat was available. What was not established from this study was whether this would lead to a reduction in overall numbers of the species, as there was no reduction in hatching or fledging success related to human use of the moor. If suitable habitat was present in areas away from human usage and population pressure was not a limiting factor, then the study concluded that there was no reason why a reduction in overall numbers would occur.

A 2007 study by Pearce-Higgins et al. expanded on these findings by using survey data to propose appropriate mitigation that could reduce impacts on both golden plover and dunlin *Calidris alpina.* This study in fact contradicted

the findings of Yalden & Yalden (1989) in that golden plover were tolerant to disturbance when selecting nesting sites and would do so within 30 metres of adjacent footpaths as long as suitable habitat was present. The same was true of dunlin. Even during high usage periods, when visitor numbers exceeded 120 per day on the adjacent footpath, and the site was in use in excess of 60% of daylight hours, there was no evidence of any effect on nest-site selection, reduction in hatching success, or overall chick survival rates. The study cites the fact that recent upgrades to the footpaths are likely to have resulted in more visitors keeping to these trails and away from open moorland where their presence may have disturbed nesting birds.

This assertion was supported by Finney et al (2005) which noted that golden plover with chicks remained within 50 metres of a recently upgraded and properly waymarked footpath in the Peak District, regardless of high visitor numbers, which was in marked contrast to the 200-metre distance noted before these improvements.

There is limited data for other species such as curlew *Numenius arquata.* As with previous studies, there is no evidence of a drop in numbers related to human disturbance, or a quantifiable effect on hatching or fledging success (Showler et al 2010).

Further to these specific studies, Natural England's assessment (jointly conducted with the RSPB and BTO) found no evidence that the implementation of the Countryside and Rights of Way (CRoW) Act was negatively impacting upland breeding bird numbers. The study of expanded survey data from the uplands in 2006 and 2007 found most species on open access land to have either remained stable or increased in number. This included golden plover. The study does note, however, that continued monitoring is required, as well as further specific study as to the impact of poorly controlled dogs on bird populations, an assertion echoed by Showler et al (2010).

The majority of the other papers reviewed relate to recreational disturbance on winter-feeding grounds and/or of non-SPA species that are not found in the South Pennines area, and as such are not discussed here.

The available literature does not show any evidence of a significant effect on nest-site selection, hatching or fledging success, or overall population number on any species, particularly golden plover. This is, however, dependent on the existence of well managed, surfaced and waymarked footpaths which guide human recreational use away from the most sensitive areas, in this case suitable habitat for ground nesting birds. It also depends to some extent on a low density of footpaths which do not act to 'squeeze' available nesting habitat, particularly for species such as curlew, on which the impact of recreational disturbance is not as well studied. The presence of advisory notices requesting that dogs be kept on leads in the most sensitive areas is also considered vital by the majority of the studies cited here.

Richard Hall
Senior Ecologist
13 February 2015
References

Noble, D., Davis, S. & Ockendon, N. 2007, *Assessment Report on the second year of the Upland Breeding Bird Survey: assessing change between 2006 and 2007,* Natural England, RSPB, BTO

Finney, S.K., Pearce-Higgins, J.W., Yalden, D.W. 2005, *The effect of recreational disturbance on an upland breeding bird, the golden plover* Pluvialis apricaria, Biological Conservation (2005) 53-63

Pearce-Higgins, J.W., Finney, S.K., Yalden, D.W., Langston R.H.W. 2007, *Testing the effects of recreational disturbance on two upland breeding waders,* Ibis (2007), **149**, 45-55

Showler, D.A., Stewart, G.B., Sutherland, W.J., Pullin, A.S. 2010, *What is the impact of public access on the breeding success of ground-nesting and cliff-nesting birds: systematic review,* Collaboration for Environmental Evidence 05-010

Yalden, D.W. & Yalden P.E., 1988, *The level of recreational pressure on blanket bog in the Peak District National Park, England,* Biological Conservation **44,** 213-227

Yalden, D.W. & Yalden P.E., 1989, *Recreational disturbance of breeding golden plovers* Pluvialiis apricarius, Biological Conservation **51,** 243-262

Appendix 7

Subject: RE: 2001 SPA Review papers
Date: Tuesday, 17 February 2015 15:06:47 Greenwich Mean Time
From: David.Stroud@jncc.gov.uk
To: Andrew Baker

Dear Andrew

Yes, that indeed was the case. The list and review went formally from JNCC to DETR (as it then was), and was published with the endorsement of DETR, English Nature and the other relevant agencies and departments later in 2001 (October I think).

With a DETR colleague, I presented the review to the Commission in Brussels on 17 July that year.

Hope this helps.

David

David A. Stroud
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Peterborough PE1 1JY
United Kingdom
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Fax: +44 (0)1733 555948
Skype: davidstroudjncc
E-mail: David.Stroud@jncc.gov.uk
Web-site: jncc.defra.gov.uk

From: Andrew Baker [mailto:a.baker@bakerconsultants.co.uk]
Sent: 17 February 2015 12:47
To: David Stroud
Subject: FW: 2001 SPA Review papers

Dear Dr Stroud,

Following on from of recent conversation regarding your 2001 SPA review John Henson has very kindly provided me with a copy of the June 2001 committee minutes when the Review was endorsed. The minutes note that the JNCC Chairman was delegated to sign off the list for submission to DEFRA and presumably subsequently to the European Commission.

Can you confirm to me that this was indeed carried out both to DEFRA and the to the EC?

Yours

Andrew.

Andrew Baker BSc MCIEEM
Managing Director

a.baker@bakerconsultants.co.uk
West Platform
Cromford Station
Cromford Bridge
Matlock Derbyshire
DE4 5JJ

07590 122969
01629 593958

From: "John.HensonWebb@jncc.gov.uk" <John.HensonWebb@jncc.gov.uk>
Date: Monday, 16 February 2015 13:31
To: Holly Waterman <h.waterman@bakerconsultants.co.uk>
Subject: RE: 2001 SPA Review papers

Good Afternoon Holly,

Thank you for your email.

Further to your recent telephone conversation with my colleague, please find attached an extract from the addendum to the minutes of the 51st meeting of the JNCC, held in Llandudno in June 2001, which specifically relate to the SPA Review.

We have also included the paper referred to in the extract (P08) to give context to the minutes.

We hope these are of assistance.

Thank you.

John

John Henson Webb
Communications and Governance Officer
Communications Team
Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough PE1 1JY, UK
Tel: 01733 866801 Fax: 01733 555948
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baker*consultants*