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7216: NURSERY FIELDS, WEST BERSTED

BRIEFING NOTE: FURTHER INFORMATION PERTINENT TO SHADOW HABITATS REGULATIONS ASSESSMENT

MARCH 2021

Introduction

1. To inform an outline planning application for new residential development at the Nursery Fields site, West Bersted (application reference BE/148/20/OUT), Ecology Solutions undertook a suite of ecological surveys between 2016 and 2020. Information regarding the work undertaken at the application site is outlined within the report entitled '*Ecological Assessment*', which was submitted as part of the planning application in December 2020.
2. Mindful of the position outlined in the Arun Local Plan relating to the West of Bersted Strategic Housing Site (SD3) – within which the application site is located – specific consideration was afforded to potential implications of the proposed development in respect of European designated sites. Information was submitted to Arun to enable them to discharge their duties as the Competent Authority under the Habitats Regulations in a document entitled '*Shadow Habitats Regulations Assessment*' (hereafter referred to as the sHRA).
3. It is important at the outset to emphasise that whilst the application site forms part of a wider site allocated for new development, the planning application which has been submitted is coming forward independently of the wider allocation. As a result, whilst regard has of course been afforded to background information pertinent to the allocation (and there remains a need to consider the potential for in combination effects to arise with all other plans and projects), under the Habitats Regulations, the consideration of potential effects arising as a result of the proposed development must be assessed on its own merits, rather than through the prism of the wider site.
4. Subsequently, it is understood that consultation responses have been provided by Susan Beale at Natural England, in emails to Arun District Council dated 3 and 4 February 2021, and Liz Annalls at Chichester District Council (Biodiversity Officer), in an email dated 1 February 2021. The consultation responses raise several concerns relating to the information outlined within the sHRA.

5. This Briefing Note provides further clarification, information and justification in relation to the points raised by Natural England and the Biodiversity Officer, with reference made to the Ecological Assessment and sHRA where relevant. The contents of this Note should provide comfort to the Council that the development proposals are not likely to lead to a significant effect upon the integrity of any European designated sites, either when the proposed development is considered alone or in combination with any other plans or projects.
6. As a result, and in light of the information submitted in respect of this application, and supplemented with further detail within this Note, it is our view that the Local Planning Authority has been provided with all the ecological information that it requires in order to fully discharge its duties pursuant to the Habitats Regulations, such that it may robustly conclude that outline planning consent can be safely granted for the development of the site.

Issues raised by Natural England and Biodiversity Officer

7. Specific consideration to the extent to which land associated with the application site could be classed as functionally linked land (sometimes referred to as supporting habitat) associated with Pagham Harbour Special Protection Area (SPA) / Ramsar site is outlined in paragraphs 5.11 to 5.21 inclusive of the sHRA.
8. Particular consideration is afforded to Dark-bellied Brent Geese *Branta bernicla bernicla*, one of the qualifying features of the European designated site, in paragraphs 5.15 to 5.21 inclusive of the sHRA. Brent Geese are known to utilise inland arable habitats for foraging, with an identified zone of influence of up to 5km from the SPA / Ramsar site. However, for the reasons outlined in this sHRA, it was concluded that the application site would not represent land classed as important functionally linked land associated with Pagham Harbour SPA / Ramsar site.
9. In consultation emails dated 3 and 4 February 2021, Natural England raise a number of points in relation to the potential use of the application site by Brent Geese. In summary, notwithstanding the assessment outlined in the sHRA, it is understood that Natural England hold concerns at present that the application site could potentially represent functionally-linked land associated with the European designated site, such that the proposed development could potentially lead to an adverse effect upon the integrity of the SPA / Ramsar site.
10. To provide further information, clarification and justification, consideration has been afforded to each of the key points highlighted in the email on 3 February 2021; specifically:
 - Historical data search information;
 - Openness of the site;
 - Sources of disturbance; and
 - Information on the cropping regime and the frequency of planting favoured by Brent Geese.

Historical data search information

11. As outlined in Paragraph 5.18 of the sHRA, a desk study exercise was undertaken with Sussex Biodiversity Record Centre (SxBRC) in April 2020, with no records returned of Brent Geese from within a 3km radius of the application site. The sHRA notes that records of Brent Geese were however returned from locations which

are closer to the SPA / Ramsar site (to the south-west), a considerable distance away from the settlement boundary at Bersted.

12. In the email dated 3 February 2021, Natural England noted that the Habitat Regulations Assessment undertaken for the Arun Local Plan does refer to records of Brent Geese within 3km of the application site boundary. Further consideration has therefore been afforded to the latest version of the Local Plan HRA (dated February 2017) to investigate this further and ascertain whether this could have any implications in terms of the assessment.
13. As stated in paragraph 5.4.22 of the Local Plan HRA, one record of Brent Goose was returned from Bersted Brooks in a location approximately 350 metres to the east of the West Bersted strategic allocation from 2005. No abundance data was provided however, such that this could constitute a single bird, 10 birds or 100+ birds.
14. Having considered the land which lies to the east of the allocated site in light of OS mapping and aerial photography, it appears most likely that this could have been an incidental record of Brent Geese, given that the land to the east of the application site comprises existing built form. Alternatively, this record may have come from a location to the north of the application site boundary. The closest distance between the application site and open fields to the north is approximately 600 metres, separated by existing residential development.
15. Given that the record cited in the Local Plan HRA is an isolated record (with no other records of Brent Geese within 3km returned as part of the desk study exercise with SxBRC), this does not provide any evidence which indicates that the application site or local area is of any historical importance for Brent Geese, neither would it be evidence of functionally linked land.
16. To provide further clarity regarding historical records, Ecology Solutions contacted Sussex Ornithological Society (SOS) in February 2021. All records of Brent Geese were requested from six 1km grid squares, which incorporate all land within the application site as well as to fields to the north, west and south. Appendix 1 attached to this document clarifies the total area covered by this additional data search.
17. SOS has subsequently confirmed in email correspondence that they do not hold any records of Brent Geese within any of these 1km grid squares from the last 25 years. Although it is acknowledged that desk study information must be treated with caution, it is therefore clear that there is no historical evidence to indicate that Brent Geese have used the application site, adjoining fields or indeed wider land, such that it would be likely to (or indeed could) constitute functionally linked land associated with the European site.

Openness of the site

18. Research has shown that foraging Brent Geese have a strong preference for open land with unobstructed sightlines of at least 500 metres, to allow the early detection of predators when foraging or roosting. As a result, the presence of features which are a visual barrier restricting sightlines – such as treelines, hedgerows and buildings – can significantly reduce the suitability of parcels of land for Brent Geese, as birds do not feel sufficiently free of predation risk to forage within a site.

19. As stated in the Ecological Assessment and sHRA, the application site comprises two fields which are enclosed and separated by tall treelines and hedgerows. These features provide significant visual barriers which restrict sightlines, effectively separating both the application site from the much larger fields to the west and south-west, and also separating the two fields present within the application site itself. Descriptions of the treelines and hedgerows are provided in Section 3.7 of the Ecological Assessment.
20. In light of comments provided in the consultation response from Natural England dated 3 February 2021, which question the extent to which these features are likely to provide a potential visual barrier, further information is provided below in relation to these features.
21. Photographs of the treelines and hedgerows along the boundaries of these fields are included at Appendix 2 of this Note, with the location of where each image was taken marked on Plan ECO1 for clarity. All of these images were undertaken in February 2021 and are therefore representative of these features during the wintering period (i.e. when Brent Geese are likely to be present at the European designated site). It is clear from the photographs that both the treelines and hedgerows along the application site boundary and those separating the two fields comprise very dense, tall linear features. As noted in the sHRA they therefore represent significant visual barriers.
22. Plan ECO1 also notes the maximum unobstructed visual distance both within the two fields within the application site, and also within the extensive fields located to the south-west and west (within the wider allocation). As illustrated on the plan, sightlines within the application site are, at most, 200 metres in size, with a significant proportion of the fields having maximum sightlines which are less than this. In contrast, the sightlines within the wider allocated site exceed the minimum 500 metres which has been identified to be of importance for Brent Geese.
23. The lack of unrestricted and open land with clear sightlines within the application site prove a significant deterrent to the use of the site by foraging Brent Geese, particularly when much more extensive fields with clear lines of sight are located closer to the SPA / Ramsar site. As such, it is considered that this factor would represent a key reason why the application site provides unsuitable habitat for Brent Geese.

Sources of Disturbance

24. As stated within the sHRA, there are also a number of Public Rights of Way (PRoW) and informal footpaths which pass through the application site. Plan ECO2 attached to this Note illustrates that there is one PRoW which passes east-west through the centre of the application site, which connects to further PRoW located along the north-western and south-western boundaries of the application site. These are in turn connected to areas of existing residential development to the north, east and south.
25. During the course of site visits undertaken by Ecology Solutions (throughout the summer and winter periods, including site visits undertaken between October 2020 and February 2021), a significant level of recreational activity has been recorded along these routes. In particular, the PRoW are regularly used by dog walkers, often with dogs noted to be off the lead.

26. When considered together with the compartmentalised and enclosed nature of the fields within the application site (which results in limited sightlines) and noting that the PRow passes through and across both fields, it is considered that existing recreational activity would effectively prevent Brent Geese from utilising the habitats present within the application site for foraging due to disturbance.
27. Furthermore, the PRow which lie beyond the north-western and south-western boundaries of the application site are also subject to regular use by existing residents in the local area. As a result, disturbance arising from recreation is also likely to deter any birds from utilising the closest parts of the wider allocated site to the west of the application site boundary.

Cropping regime and frequency of planting favoured by Brent Geese

28. Clarification has been sought from the landowner with regard to the historical cropping regime and planting during the winter period at the application site, to ascertain the extent to which the application site supports crops which are potentially suitable for foraging Brent Geese.
29. The cropping regime for the last three winters has been confirmed as follows:
 - Winter 2018/19 – stubble
 - Winter 2019/20 – winter oil seed rape
 - Winter 2020/21 – winter wheat
30. As noted in the sHRA and outlined within the Solent Waders and Brent Goose Strategy (King, 2010), short swards of improved grassland and winter cereal crops provide alternative feeding areas for Brent Geese. Oil seed rape also provides potential foraging opportunities. However, ploughed fields, stubble and other crop types are unsuitable for this species.
31. It is therefore evident that the variation in land management at the application site over previous years means that the habitat is not always suitable for foraging Brent Geese, although on occasion it does support a suitable food crop. Importantly, the current winter wheat is ideal, yet (as outlined below) surveys to date show no evidence of use by Brent Geese. This further re-enforces that the characteristics of the application site in relation to sightlines and disturbance, render the application site unsuitable for foraging Brent Geese, despite the presence of a superficially suitable food source.

Summary

32. Whilst the arable habitats present within the application site are subject to a management regime that provides suitable food sources (albeit not every winter), there remain two overriding factors that effectively serve to prevent foraging Brent Geese from utilising the application site: poor sightlines due to tall, dense treelines and hedgerows both within the application site and along the boundary, combined with a significant level of disturbance from existing recreational use of PRow within and adjacent to the application site.
33. Moreover, having the updated desk study exercise has reconfirmed that there is no historical evidence of Brent Geese activity either within the application site or in the local area.

Wintering Bird Surveys

34. Notwithstanding the conclusion as outlined above, wintering bird survey work has been undertaken on a precautionary basis. Surveys have been undertaken in January, February and March 2021.
35. It is important to note that the application site (and the immediately adjoining land to the west) currently supports a winter wheat crop. Mindful of the position adopted by Natural England (as expressed in the email dated 3 February 2021) that survey work should be completed when land is in suitable management for geese, it is therefore considered that the findings of the survey work are valid.
36. The survey methodology and findings to date are outlined below.

Survey Methodology

37. The wintering bird survey methodology used at the site and local area has been guided by bird survey techniques identified in Bird Census Techniques (Bibby *et al.*, 2000).
38. The survey work was based around Vantage Point (VP) survey methodology. Given the nature of the application site and its surroundings (fields separated by treelines and hedgerows), it is considered that this methodology is the most appropriate as it allowed an accurate count of the wintering birds present in the survey area.
39. As outlined at Plan ECO3, a total of four VP were identified: two within the application site (to record birds utilising the two arable fields), and two observing the fields adjoining the application site to the west and south-west. This was considered to be the fewest number of VPs necessary to ensure adequate coverage of the survey area whilst minimising the likelihood of disturbing birds when moving between VPs.
40. To minimise the observer's effect on bird behaviour, all VP were located outside the survey area adjacent to existing boundary features. Observers positioned themselves inconspicuously so as to minimise their effects on bird movements.
41. The surveyor recorded the following information at each VP using binoculars and scopes where appropriate:
 - Maximum count of each species of bird recorded on the ground;
 - Plot on a map the main locations of birds present on the ground, with notes on species present;
 - Record any notable movements of birds recorded (also identified on a map);
 - Details regarding weather conditions, including cloud cover, temperature and wind speed/direction.
42. Surveys were undertaken during suitable weather conditions; specifically, good visibility (>1km) and light to moderate winds. Surveys were avoided where light levels are low, visibility was poor or there were high winds.
43. All surveys were undertaken over a four hour period in total, covering the period two hours before and two hours after high tide. Surveys were undertaken by

experienced ornithologists who were competent in the identification of wintering birds.

44. In addition to the 'formal' wintering bird surveys completed in January to March 2021 inclusive, a number of site visits were undertaken by a suitably qualified ecologist in October, November and December 2020. Although the purpose of the site visits was not to complete specific bird survey work at the application site, consideration was afforded to land both within and adjacent to the application site, with notes made in relation to a range of ecological features including both the habitats present and the use of the application site by faunal species. No Brent Geese on the application site have been recorded at any time during the surveys, while in addition no evidence of Geese droppings was recorded.

Survey Results

45. The dates and weather conditions of the wintering bird surveys completed are outlined in Table 1 below.

Date	Timing	Weather Conditions
18.01.2021	Commenced 0833, Completed 1233 (High Tide 1033)	8C, good visibility, light winds
16.02.2021	Commenced 1200, Completed 1600 (High Tide 1400)	10C, good visibility, light to moderate winds
03.03.2021	Commenced 1120, Completed 1520 (High Tide 1320)	10C, good visibility, light to moderate winds

Table 1: Dates and weather conditions for wintering bird surveys

46. During the January survey, no Brent Geese were recorded from any vantage point either flying over or utilising the application site or wider allocated site to the west or south-west. In addition, no other species associated with Pagham Harbour SPA / Ramsar site were recorded during the course of the survey.
47. Similarly, during the February survey, no Brent Geese were recorded flying over or utilising the application site during the course of the survey. However, a flock of approximately 700 Brent Geese were observed in the far distance to the south-west of VP4. The birds were observed foraging on the ground in the far south-western corner of the wider allocated site. No other species associated with Pagham Harbour SPA / Ramsar site were recorded at any point during the survey.
48. During the March survey, again no Brent Geese were recorded flying over or utilising the application site during the course of the survey. A flock of approximately 180 Brent Geese were observed flying over the wider allocated site approximately 1km south of VP3, although no birds were recorded to land. Similar to the previous surveys, no other species associated with Pagham Harbour SPA / Ramsar site were recorded at any point during the survey within or in close proximity to the application site itself.
49. In addition to the above, site visits were undertaken by a suitably qualified ecologist on 15 October, 10 November and 18 December 2020. Visibility was recorded to be good on each occasion. During the course of each site visit, no individual or flocks of Brent Geese were recorded within or in close proximity to the application site boundary, nor was any evidence found to indicate their potential presence (such as collections of droppings or winter wheat that was short due to grazing).

Discussion and Conclusions

50. There is no evidence either from the wintering bird surveys undertaken in January, February or March 2021, or indeed for site visits completed in October, November and December 2020, to indicate that the application site is utilised by foraging Brent Geese, despite the fact that it currently supports a winter wheat crop. In contrast, the February 2021 survey identified a flock of Brent Geese located a significant distance to the south-west of the application site, within the extensive fields located closer to the SPA / Ramsar site.
51. It is therefore considered that the results obtained from the three wintering bird surveys serve to support the robust conclusion as outlined above that the application site does not provide any suitable habitat for foraging Brent Geese.

Overall Summary and Conclusions

52. For the reasons outlined in the sHRA, and as supported with additional clarification and justification within this Note, the characteristics of the application site do not provide suitable opportunities for Brent Geese, due to the lack of openness (with poor sightlines) and regular disturbance from dog walkers. There are no historical records of Brent Geese utilising either the land within the application site or indeed the adjoining fields to the west over the past 25 years.
53. Furthermore, wintering bird survey work which has been undertaken on a precautionary basis has not identified any evidence of use of the site by Brent Geese, despite the fact that the application site supports a suitable food source.
54. It is therefore considered that the conclusion outlined in paragraph 5.20 of the sHRA is robust: specifically, that the application site does not represent land which could be classed as functionally linked land or supporting habitat for Pagham Harbour SPA / Ramsar site. Functionally linked land must be both proven and important and there is no evidence base to suggest either.
55. In turn, it is therefore considered that the development proposals would not result in a significant adverse effect on Brent Geese (or indeed any other qualifying feature associated with the European designated site) through impacts on functionally linked land or supporting habitat.

PLANS

PLAN ECO1

Sightlines and Photographs

KEY:

APPLICATION SITE BOUNDARY



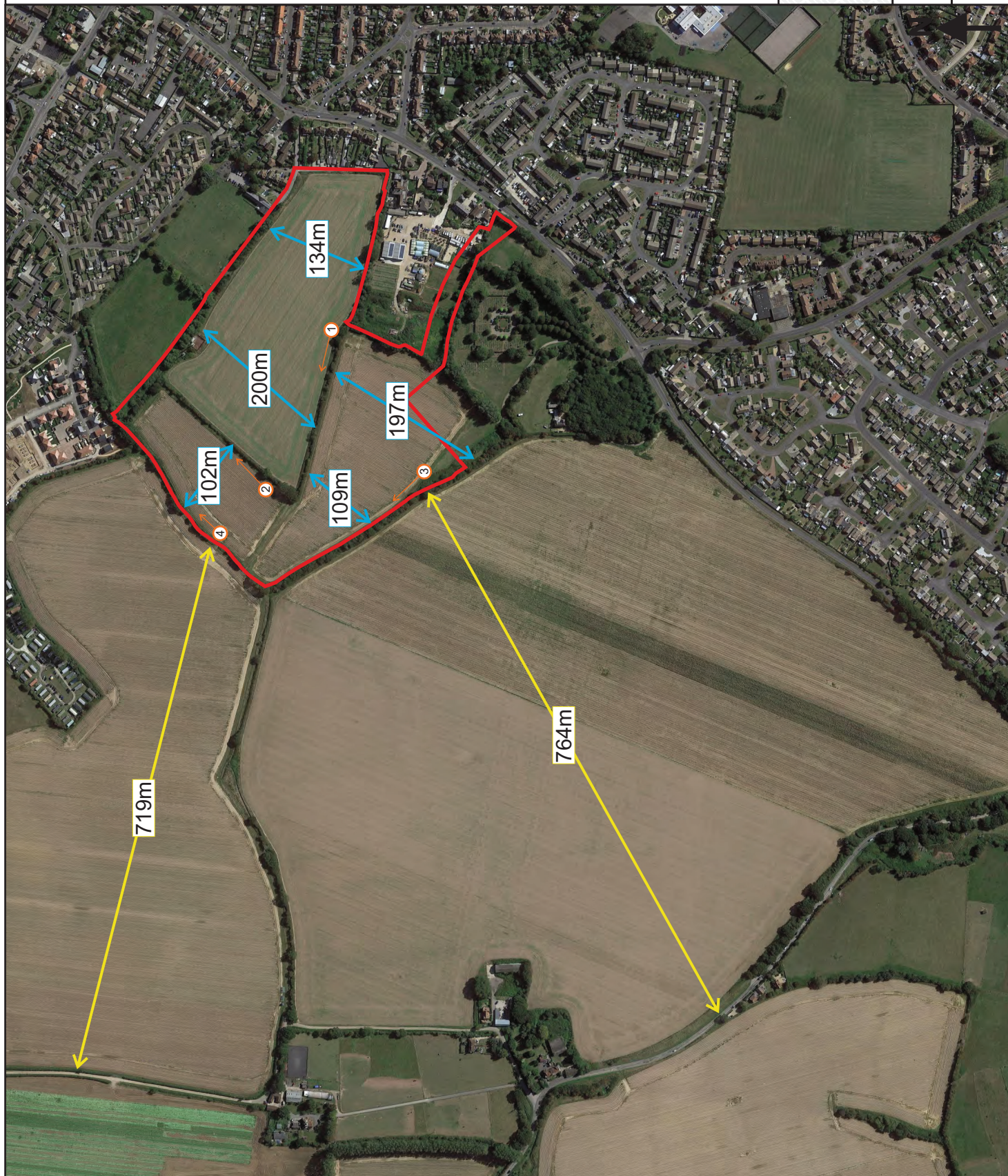
SIGHTLINE WITHIN APPLICATION SITE



SIGHTLINE WITHIN WIDER ALLOCATION SITE



PHOTOGRAPH NUMBER & DIRECTION
(as shown on Appendix 2)



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7216: NURSERY FIELDS, WEST BERSTED

PLAN ECO1: SIGHTLINES AND
PHOTOGRAPHS

Rev: A
Feb 2021

PLAN ECO2

Public Rights Of Way



KEY:



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7216: NURSERY FIELDS, WEST BERSTED

PLAN ECO2: PUBLIC RIGHTS OF WAY

Rev: A
Feb 2021

PLAN ECO3

Wintering Bird Survey Vantage Points



KEY:



APPLICATION SITE BOUNDARY



VANTAGE POINT NUMBER & DIRECTION



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Part of the ES Group

7216: NURSERY FIELDS, WEST BERSTED

PLAN ECO3: WINTERING BIRD
SURVEY VANTAGE POINTS

Rev: A
Feb 2021

APPENDICES

APPENDIX 1

SOS Grid Squares



APPENDIX 2

Photosheet



PHOTO 1: INTERNAL TREELINE (H6)



PHOTO 2: INTERNAL TREELINE (H1)



PHOTO 3: WESTERN BOUNDARY TREELINE (H4)



PHOTO 4: NORTHERN BOUNDARY TREELINE (H3)