Riddle Pit Farm, Hepworth

Bird Survey

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Purpose and Description	Originated	Checked	Reviewed	Date
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1. Summary

1.1.1 The Wader Monitoring Survey for a site at Riddle Pit Farm, Flint Lane between Hepworth and Carlecotes was commissioned by the owner and client Philip Lofthouse on 8th March 2021.

1.1.2 The survey was commissioned to inform a planning application for a change of use of an existing barn to a venue for weddings. The proposed change of use will not result in the land take of semi natural habitats. A previous Bird and Bat Assessment report (MBE 2020) was undertaken for the site in March 2020. This report should be read in conjunction with the initial assessment report.

1.1.3 The boundary of the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) is approximately 1.9km southwest of the site. The site is also located within 34m of the Western Moors Local Wildlife Site (LWS).

1.1.4 The bespoke survey methodology comprised three two-hour visits to the area using a combination of vantage point survey and walkover survey to locate breeding territories. A video camera was used to capture wader behaviour during the replication of noise impacts likely to arise from a wedding event (playing loud music from the proposed event building).

1.1.5 No impacts upon bird species using the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) are envisaged because of the distance from the site. No impacts to the nearby Tinkers Hill LWS are envisaged and impacts to wading birds nesting and foraging adjacent to the site are considered negligible.

2. Introduction

2.1.1 This Wader Monitoring Survey for a site at Riddle Pit Farm, Flint Lane (OS Grid Ref. SE 1706 0418), between Hepworth and Carlecotes, was commissioned by the owner and client Philip Lofthouse on 8th March 2021. The survey was commissioned to inform a planning application for a change of use of an existing barn to a wedding venue. The proposed change of use will not result in the land take of any adjacent semi natural habitats.

2.1.2 A previous Bird and Bat Assessment Report (MBE 2020) was requested by Barnsley Metropolitan Borough Council given that the site is located within 2km of the South Pennine Moors Special Protection Area (SPA), Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). The site is also 34m south and 110m east of the boundary of the Western Moors Local Wildlife Site (LWS). This report should be read in conjunction with the initial assessment report.

2.1.3 The purpose of this report is to present the results of a bespoke survey undertaken to assess potential ecological impacts associated with the scheme (noise), particularly to wading birds which breed nearby and for which the SPA is designated. As the southern boundary is largely screened by trees and guests will not have access to this area, noise is considered the major potential concern.

3. Site Description

3.1.1 The application site is at Riddle Pit Farm and is situated in a rural location within the inbye land surrounding the South Pennine Moors. The site located off Flint Lane between Carlecotes and Hepworth near the border between South and West Yorkshire. The proposals relate to a modern steel framed agricultural building with a single skin concrete block wall beneath a pitched corrugated asbestos cement roof. There are to be no direct impacts upon semi natural habitats adjacent to this building, however, portaloos will be placed on adjacent hard surfacing, whilst a farmhouse is located adjacent to the surveyed barn.

3.1.2 The land to the west of the application site (barn) rises towards the nearby moorland (included in the Western Moors LWS) which is located beyond a boundary drystone wall. The field adjacent to the barn comprises rush pasture, containing an extensive wet area of rush Juncus spp. This field has not been grazed in recent years but is cut annually. Land to the north and south of the barn comprises the same habitat.

4. Methodology

4.1 Field Survey

4.1.1 Three visits to the site were made during the peak period for breeding wading birds between 20th April and 19th May 2021 by the experienced ornithologist Peter Middleton (MCIEEM).

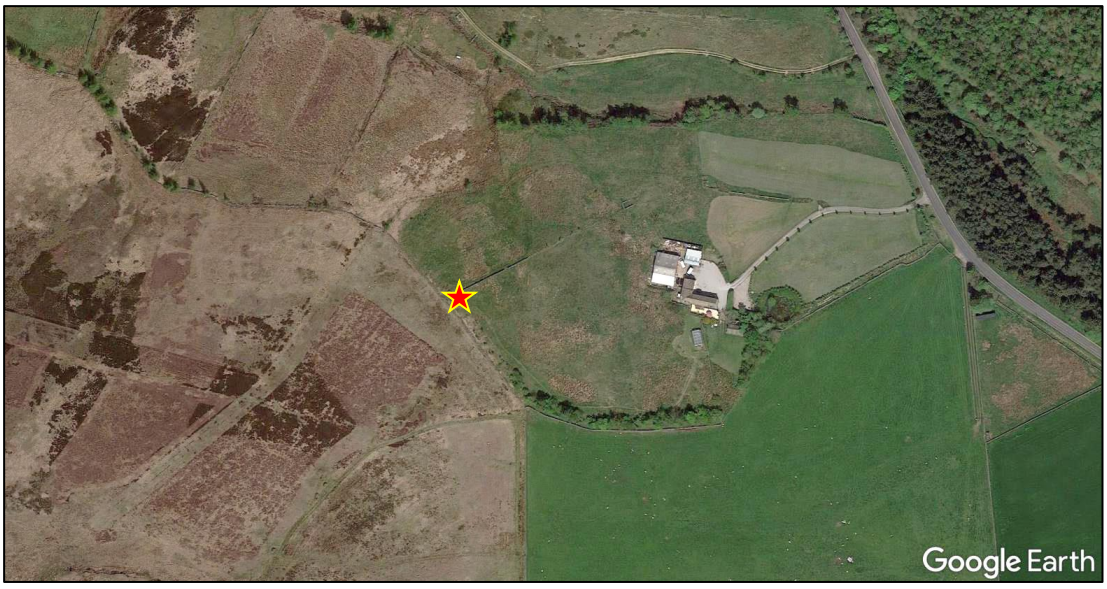
4.1.2 The bespoke surveys, which differ from the ones recommended in the initial assessment survey, comprised two-hour sessions with the initial focus on the first visit being the establishment of breeding territories on the land surrounding the application site. A Vantage Point location was selected which would facilitate the gathering of this

information. Some time (no more than 15 minutes) was also spent visiting areas of the adjacent land to confirm breeding activity in these locations. The three survey visits were undertaken at different times of the day (late afternoon, early evening and the time prior to sunset). Two of the surveys were undertaken in the evening when potential noise from wedding events is most likely to occur.

4.1.3 During each of the three visits, following the determination of areas where wader activity was identified, breeding or foraging wading birds were observed whilst music was played in the proposed wedding event building (barn). The surveyor was able to talk on the phone to the person operating the speaker system in order to know at what level of sound it was playing at any time during the observation. The music was played at between 80 and 110 decibels (as measured by the decibel meter used by music deck operator) for varying amounts of time. The activity of the wading birds was also video recorded during this time in order to capture the effects of the noise for further viewing.

4.1.4 The visits were conducted at different times of day to help capture any change in bird use of the site, or reaction to noise, with alterations in the diurnal period.

Figure 1. The site and Vantage Point survey location



4.1.5 The following equipment was used or at hand during the surveys:

- 10 x 42 Binoculars
- 30 x Telescope
- Cannon XA 10 Video Camera
- Decibel meter

4.1.6 The date, time and weather conditions during the surveys are presented in Table 1 below.

Table 1. Weather conditions

Date	Time	Weather Conditions
20/04/21	13:45 to 15:45	14°C throughout, almost calm with sunny intervals
05/05/21	18:00 to 20:00	8°C – 7°C, Beaufort Force 3 westerly with sunny 30% cloud
19/05/21	20:00 to 22:00	1°C – 8°C, Force 3 westerly and a clear sky

4.2 Survey Limitations

4.2.1 The number of site visits undertaken, and the limited time spent on site could be considered a constraint to this bespoke survey.

5. Results

5.1 Field Surveys

5.1.1 A plan showing wading bird territories recorded during the surveys is provided in Figure 2. Observations recorded during each survey visit are detailed below.

20th April 2021 – Survey Visit 1

5.1.2 Two lapwing *Vanellus vanellus* and one curlew *Numenius arquata* breeding territories were located during this survey (see Figure 2). In addition, much curlew foraging activity was recorded in the offsite pasture field south of Riddle Pit Farm. Interestingly, no territories or foraging activity was recorded in the section of the Local Wildlife Site (LWS) (34m north) closest to the farm buildings.

5.1.3 Music was played at between 80 – 100 decibels from 15:20 to 15:35, with no visible signs of disturbance to a nearby lapwing territory or foraging curlews evident. The sound of the music could only just be heard over the traffic noise, which was busy throughout the duration of this survey. Commuting curlews were observed flying over the farm throughout the survey, including when the music was being played.

5th May 2021 – Survey Visit 2

5.1.4 A further curlew breeding territory was identified south of the farm and a pair of nesting lapwing and a maximum of two foraging curlews were present in the field immediately south of Riddle Pit Farm. There was light traffic and this time the music was played at between 80 and 110 decibels for a duration of 10 minutes with no visible disturbance caused to the observed waders evident, however, during the short time the music was playing at 110 decibels, the video recording showed that the curlew (120m south of proposed wedding venue building) ceased to forage and began to listen (Plate 1), before continuing to forage when the music was turned down to 100 decibels. It was noted that the noise of the nearby wind turbines was noticeable when there was no traffic. Again, no wader activity was recorded in the closest section of the LWS.

19th May 2021 – Survey Visit 3

5.1.5 19/05/21 survey – The pair of lapwing in the pasture field south of the farm now had two chicks. Also, there was a pair of curlew which were observed copulating in the same field. There was little traffic throughout the survey, however, the wind turbine

noise was evident. Music was played several times for prolonged periods at up to 100 decibels and no visible disturbance was observed to either the lapwing family or the pair of curlew. All curlews in the wider area had departed by 20:30 (moving west) and again, no wader activity was recorded in the closest section of the LWS.

Figure 2. Wading bird territory map. The site is circled in red with lapwing (L) and curlew (CU) territories shown.

Plate 1. Still from recorded video showing a foraging curlew

6. Assessment

6.1 Proposals

6.1.1 The proposed development is to comprise a change of uses of a barn to a venue for weddings. Portable toilets will be placed on hard surface adjacent to the barn and visitors will use the existing parking area in-front of the farmhouse. No natural or semi natural habitats will be impacted by the change of use.

6.2 Assessment of Impacts

6.2.1 No impacts upon the SPA are anticipated to any of the three bird species which comprise qualifying species for the SPA. Golden plover *Pluvialis apricaria* breeding on the LWS (Tinkers Hill) will not be impacted as they breed at a higher elevation (over 400m) further away from the application building (Pearce & Middleton 2018). No foreseeable impacts upon merlin *Falco columbarious* and short-eared owl *Asio flammeus* are anticipated as both these species breed and forage on moorland where there is an abundance of suitable prey (meadow pipits *Anthus pratensis* and voles respectively).

6.2.2 No impacts are anticipated upon the habitats of Tinkers Hill LWS. The bird species for which potential impacts were originally anticipated comprise curlew and lapwing, with these species breeding and foraging on the moorland edge and inbye land.

6.2.3 During the 2021 survey works, no wading birds were recorded breeding within the nearby section of the LWS (34m north). The reason for this observation is expected to be that wading birds prefer open landscapes with wide visibility, where they can be alert to potential predators (Cramp & Simmons 1983). The nearest section of the LWS comprises a steep sided valley which is unsuitable, furthermore, no wader foraging was observed in this area. Therefore, survey work undertaken suggests that impacts upon waders foraging in the LWS are considered to be no more than at a negligible level.

6.2.4 Riddle Pit Farm is situated in a location adjacent to a highway which at certain times is very busy with traffic, resulting in noise in excess of 90 decibels. Also, the farm and adjacent fields are located on an east-west flight path for planes to and from Manchester airport. If you add to this the noise from the nearby wind turbines, the result is quite high levels of ambient noise, and it is likely that birds in this area have become accustomed to this noise. When played at 90 - 100 decibels from the proposed wedding venue, the music was often not audible from the vantage point location (Figure 1) due to the existing ambient noise. Observations showed that music played at these volumes did not appears to disturb the birds being observed. Only when played at 110 decibels was any change in bird behaviour noted, with a single curlew visibly aware of the noise and listening. It was however noted that when the music was turned down to 90 – 100 decibels, the observed bird resumed feeding. Given that the music is never expected to play at a level above 90 plus decibels, it is considered reasonable on the basis of survey observations, to conclude that wading birds in the locality will not be significantly impacted by the additional noise.

7. References

Cramp, S and Simmons, K.E.L. (1983) The Birds of the Western Palearctic (Vol III), RSPB, Oxford University Press.

MBE (2020) Riddle Pit Farm Bird and Bat Assessment. Middleton Ecological Consultancy, Barnsley.

Pearce, D. M and Middleton, P. (2018) Atlas of Breeding Birds in the Barnsley Area 2006 - 2011. Barnsley Bird Study Group.