

AWE Aldermaston, Hydrus Project

Berkshire

Breeding Bird Survey

Prepared by:

RPS Planning & Development

Mallams Court
18 Milton Park
Abingdon
Oxon
OX14 4RP

July 2009

Tel 01235 821888
Fax 01235 820351
Email rpsox@rpsgroup.com

Contents

	Page No
1 Introduction	1
2 Legislation and Guidance	2
3 Methodology	4
4 Results	5
5 Conclusions	9
References	

Figures, Tables & Appendices

Figures

Figure 1a - 1c Breeding Bird Surveys

Tables

Table 1 Fuller's Breeding Diversity Criteria.

Table 2 Conservation status of breeding birds at Hydrus in 2009.

Table 3 Conservation status of birds foraging or passing over Hydrus in 2009.

Appendix

Appendix 1 List of all bird species present in the survey area during surveying and noted relevant activity.

Summary

- S.1 RPS was commissioned to undertake a breeding bird survey of the proposed Hydrus project redevelopment at AWE Aldermaston, Berkshire.
- S.2 The site covers approximately 8.5 hectares and is comprised largely of neutral grassland with patches of acid grassland margins, and some scattered semi-mature trees. A small copse, wet ditch and a veteran oak tree are located in the southeast corner of the site.
- S.3 Three surveys of the site were undertaken by an RPS ornithologist in spring 2009. The dates of these visits were 30th April, 20th May and 18th June. All surveys were undertaken in the morning between 0600h and 0900h at the natural high period of bird activity.
- S.4 No European protected species or species specially protected under the Wildlife and Countryside Act 1981 were identified during the breeding bird survey.
- S.5 One species of conservation concern (dunnock) was regarded as breeding on the site. This species is listed as a UKBAP Priority Species and is also placed on the amber list of birds of medium conservation concern.
- S.6 A further ten species of no current conservation concern were regarded as breeding on the site.
- S.7 Three further amber-listed species of medium conservation concern (willow warbler, stock dove and green woodpecker) were considered to be breeding in the vicinity of the site.
- S.8 Two skylarks (red-listed species of high conservation concern and UKBAP) were flushed from grassland on the site in April but were not considered to be breeding on the site.
- S.9 All of the breeding interest on the site was concentrated in the southeast corner around the small copse and the veteran oak tree. The grassland was disturbed by ongoing permitted development borehole construction work, despite being suitable for some ground-nesting species.

1 Introduction

- 1.1 RPS was commissioned to undertake a breeding bird survey of the proposed Hydrus project redevelopment at AWE Aldermaston, Berkshire.
- 1.2 The survey covered an area of approximately 8.5 hectares, the vast majority of the site consists of neutral grassland which in places can be considered flower-rich with patches of acid grassland. This grassland has developed over aggregate and broken ground is effectively “brownfield” in nature. A small deciduous copse is located in the southeast corner of the site with a field layer which is dominated by bramble. There are scattered trees over the remainder of the site and a veteran oak is located adjacent to the copse.
- 1.3 The site is bordered by areas of managed grassland interspersed with deciduous woodland and parkland trees.
- 1.4 Objectives:
- To carry out a breeding bird survey to establish the presence of breeding species on site;
 - To identify habitat features likely to be of value to breeding birds and assess the use of these features by birds; and
 - To identify any other breeding species which are specially protected and/or birds of conservation concern and birds of local county importance, listed in the local BAP.
- 1.5 This report is arranged in four chapters, with chapter two describing the relevant legislation, chapter three describing the methods, chapter four presenting the results and chapter five summarises the conclusions.

2 Legislation and Guidance

- 2.1 Birds are protected at a European level under the EC Directive on the Conservation of Wild Birds 1979 (79/409/EEC). This gives general protection to wild birds from deliberate killing, taking from the wild, egg collecting, nest destruction and keeping in captivity, but allowances are made for game birds. Species listed in Annex 1 of the Directive are the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.
- 2.2 All species of wild bird in the UK are given general protection under Part 1 Section 1(1) of the Wildlife and Countryside Act 1981. Protection is against intentional killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs. This is with the exception of some pest species listed in Schedule 2 Part 2, which may be killed at any time by an authorised and licensed person for agricultural purposes.
- 2.3 In terms of the development of a site, care must be taken to ensure that any active nests are not destroyed during the breeding season. Because different species breed at different times, the breeding season is generally accepted as running from March to August (inclusive). This can however be longer in some cases, for example house martin can still be using their nests in October. Specially protected species listed on schedule 1 are given additional protection from intentional disturbance of the adults or nests.
- 2.4 Schedule 12 (1) of the Countryside and Rights of Way Act 2000 (CRoW Act) has made amendments to Part 1 Section 1 (5) of the Wildlife and Countryside Act 1981. This makes it an offence to cause 'reckless' as well as 'intentional' disturbance to the specially protected Schedule 1 listed species.
- 2.5 In England and Wales, the maximum penalty that can be imposed in respect of a single bird, nest or egg, is a fine of up to £5000, six months imprisonment or both.
- 2.6 As part of the Biodiversity Strategy for England, DEFRA has produced a list of species of principal importance for the conservation of biological diversity in England under Section 41 (for England) of the Natural Environment and Rural Communities Act 2006. Where practicable, the conservation of species included on this list should be furthered.

Non legislative Bird Conservation Guidance

- 2.7 The UK Biodiversity Action Plan (BAP) was prepared as a result of the Rio Biodiversity Convention 1992 to list species of conservation concern with action to be taken to help protect them. Fifty-nine species of bird are listed in the UK BAP.
- 2.8 Berkshire has not yet prepared a list of birds to feature in a local BAP programme.

- 2.9 In addition to legislation and BAP's, birds have been categorised as to their level of conservation concern indicated by their population status and stability. Government and Non-Governmental Organisations (NGO's) including the JNCC, RSPB and BTO have produced lists of the current status of the UK's birds. These are the Red, Amber and Green lists, published in *The Population Status of Birds in the UK – Birds of Conservation Concern: 2002-2007* (Gregory *et al*, 2002). This publication updates previous assessments, the *Birds of Conservation Importance* (Gibbons *et al*, 1996) and *Birds of Conservation Concern* (JNCC, 1996).
- 2.10 Red list species are those that are Globally Threatened according to IUCN (International Union for Conservation of Nature and Natural Resources) criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
- 2.11 Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- 2.12 Green list species fulfil none of the criteria and include all other commonly occurring birds in the UK.

3 Methodology

- 3.1 This survey used the British Trust for Ornithology's (BTO) Breeding Bird Survey (BBS) methodology to record species present on the site during the breeding season (Gilbert *et al.*, 1998).
- 3.2 The BBS involved three survey visits in the peak breeding season to identify birds breeding at the Hydrus site via their song and behaviour, to establish a species list.
- 3.3 Breeding birds are best surveyed over large areas by recording the presence of territorial males who defend an area around their nests from neighbouring birds, as outlined in the Common Bird Census methodology (Marchant *et al.* 1990). Territorial males are normally best detected by their song, the purpose of which is to deter neighbouring males from entering their territory.
- 3.4 Three surveys of the site were undertaken by an RPS ornithologist in spring 2009. The dates of these visits were 30th April, 20th May and 18th June. All surveys were undertaken in the morning between 0600h and 0900h at the natural high period of bird activity. A singing bird of a given species is likely to be breeding in the area in which it was recorded.
- 3.5 Birds were surveyed by walking a transect around the site to include all areas within the red line boundary.
- 3.6 Surveys were undertaken avoiding any unfavourable weather, such as heavy, persistent rain and/or strong winds.
- 3.7 All birds were noted using standard BTO notation codes.
- 3.8 The conservation status of recorded birds has been assessed against the following criteria: EU Birds Directive 1979 Annex 1, Wildlife and Countryside Act 1981 Schedule 1, UK BAP Priority species, DEFRA's list of species of principal importance for the conservation of biological diversity in England (Section 41 of the NERC Act 2006) and the Red and Amber lists of Birds of Conservation Concern.

4 Results

Overview

- 4.1 No European protected species or species specially protected under the Wildlife and Countryside Act 1981 were identified during the breeding bird survey.
- 4.2 Three UKBAP species (dunnock, skylark and herring gull) were identified during the surveys but only dunnock were breeding on the site.
- 4.3 Two red-listed species of high conservation concern (herring gull and skylark) were recorded during the survey but neither species was breeding on the site.
- 4.4 Five amber-listed species of medium conservation concern (dunnock, stock dove, green woodpecker, mallard and willow warbler) were recorded but only dunnock was breeding on the site.
- 4.5 A total of 26 species were recorded during the surveys with 11 of these breeding on the site. A further 15 were passing through the site or breeding beyond the site boundary.
- 4.6 The presence of 11 breeding species indicates that the diversity recorded on the site is of negligible significance as measured on Fuller's (1980) breeding diversity criteria, as described in Table 1 below;

Table 1. Fuller's Breeding Diversity Criteria

National	Regional	County	Local
85+	84-70	69-50	49-25

- 4.7 The species assemblage on the Hydrus site is a reflection of the small size of the site and the limited number of habitats present. The main breeding bird interest was concentrated in the small copse in the southeast of the site and the veteran oak tree. No bird species were found to be nesting in the grassland, although two skylarks were flushed on 30th April.

General Patterns of Species Distribution and Habitat Use

- 4.8 The full list of species recorded during the BBS is provided in appendix 1. Figures 1a – 1c illustrate the location of sightings within the redline boundary.
- 4.9 The majority of birds which were breeding on the site were confined to the small area of copse in the southeast corner. Associated with this area of copse are several other trees, one of which is a veteran oak. The species recorded as breeding were blackbird, blackcap, blue tit, chaffinch, chiffchaff, dunnock, nuthatch, robin, woodpigeon and wren. In addition, at least

one pair of jackdaws was nesting in the veteran oak tree. The copse provides a variety of nesting sites which includes the bramble ground layer, the trees themselves and other features such as log piles (favored by species such as wrens). The dense bramble cover is particularly suitable for nesting warblers of which two species (blackcap and chiffchaff) were recorded singing in the copse. A family of newly fledged chiffchaffs was observed foraging in the copse in June.

- 4.10 The remainder of the site is comprised of acid grassland, in places developing over areas of aggregate. There are also a number of scattered semi-mature broadleaved trees. The grassland does provide opportunities for ground-nesting species but the presence of some areas of construction in the central portion of the site means that disturbance is fairly high. Two skylarks were flushed from grassland in the northeast of the site in April but given that they flew strongly away and were not recorded again it is not thought that they were breeding on the site.
- 4.11 Other species (e.g. carrion crow, green woodpecker, great-spotted woodpecker, stock dove, willow warbler) were seen passing over or foraging within the site. Potential breeding habitat for these species is present on the site but no breeding was confirmed. Similar broad-leaved scattered trees and woodland exists to the south and west of the site and these species are likely to be nesting in those areas.

Conservation Status of birds on the Hydrus Site

- 4.12 The conservation status of birds breeding on the Hydrus site is shown in Table 2. One species of conservation concern (dunnock) was confirmed as breeding on the site. This species is placed on the amber-list of medium conservation concern due to declines (25-49%) in the UK breeding population. Dunnock are also listed as a UKBAP Priority Species. This species bred in the copse in the southeast corner of the site.

Table 2. Conservation status of breeding birds on the Hydrus site in 2009

Species	Species Code	WCA1	BDir	Red List	Amber List	UK BAP
Blackbird	B.					
Blackcap	BC					
Blue tit	BT					
Chaffinch	CH					
Chiffchaff	CC					
Dunnock	D.				✓	✓
Jackdaw	JD					
Nuthatch	NH					

Species	Species Code	WCA1	BDir	Red List	Amber List	UK BAP
Robin	R.					
Woodpigeon	WP					
Wren	WR					

4.13 Ten green-listed species of no current conservation concern were also identified as breeding on the site. As previously stated, breeding was confined to the copse in the southeast of the site.

4.14 In addition to the 11 species which were regarded as breeding on the site an additional fifteen species were observed passing over the site or foraging within the site. A number of these species are likely to have bred in the vicinity. Table 3 outlines the species and their conservation status.

Table 3. Conservation status of birds passing over or foraging within the Hydrus site in 2009

Species	Species Code	WCA1	BDir	Red List	Amber List	UK BAP
Carrion crow	C.					
Coal tit	CT					
Goldfinch	GO					
Great tit	GT					
Great-spotted woodpecker	GS					
Greenfinch	GR					
Green woodpecker	G.				✓	
Grey heron	H.					
Herring gull	HG			✓		✓
Jay	J.					
Magpie	MG					
Mallard	MA				✓	
Skylark	S.			✓		✓
Stock dove	SD				✓	
Willow warbler	WW				✓	

- 4.15 Two red-listed species of high conservation concern were seen either passing over or foraging on the site. Herring gulls were recorded passing over the site, moving between roost sites and feeding grounds. A pair of skylarks were flushed from grassland in the north of the site in April. While the habitat is potentially suitable for this species to breed there is a fairly high level of disturbance due to construction groundworks along an access track. No further sightings were made and it is therefore thought that the species did not breed on the site in 2009.
- 4.16 Three amber-listed species of medium conservation concern were recorded foraging within the site or directly adjacent to the site boundary. A willow warbler was singing and defending territory in woodland located to the north of the site boundary. Stock doves and green woodpeckers were routinely observed flying over the site or foraging in the grassland and the copse. Suitable nesting habitat exists on the site for both species although no breeding was confirmed. A mallard was seen passing over the site in May. There are no water-bodies on the site and therefore this species did not breed on the site.

5 Conclusions

- 5.1 No specially protected birds were identified as breeding on the Hydrus project site in 2009.
- 5.2 One amber-listed and UK BAP Priority species (dunnock) was identified breeding on the site.
- 5.3 Ten additional species of no current conservation concern were also found to be breeding on the site.
- 5.4 A pair of skylarks was flushed from grassland in the north of the site. This species is red-listed and of high conservation concern. They were not considered to be breeding on the site. Three amber-list species (willow warbler, stock dove and mallard) were also recorded during the survey. None were considered to be breeding on the site although suitable habitat does exist for willow warbler and stock dove. Both species are thought to be breeding locally.
- 5.5 The copse in the southeast corner of the site and the associated veteran oak were the focal point of the breeding bird interest on the site. All species considered to be breeding did so in this area. The grassland is suitable for ground-nesting birds such as skylark but, at present, the level of disturbance is precluding breeding. A cessation of permitted development borehole construction works and the retention of some grassland may encourage skylarks to breed in the future.

References

Bibby C.J., Burgess, N.D., Hill, D.A., Mustoe, S. & Lambton, S. (2000) *Bird Census Techniques*. 2nd Edition. Academic Press, London.

British Government (1981) *Wildlife and Countryside Act 1981*. The Stationery Office, Norwich.

Cresswell Associates (2004) *Ecological Appraisal of land at Wisley Aerodrome, Surrey*. Ecological Report

European Community (1979) *EC Directive on the Conservation of Wild Birds 1979 (79/409EEC)*. Brussels.

Gregory, R.D., Wilkinson, N.I., Noble, D.G., Robinson, J.A., Brown, A.F., Hughes, J., Procter, D.A., Gibbons, D.W. & Galbraith C.A (2002) *The Population Status of Birds in the UK - Birds of Conservation Concern: 2002-2007*. BTO and others.

Holden, P. & Cleaves, T. (2002) *RSPB Handbook of British Birds*. Chris Helm, London.

Merchant, J.H (1983) *BTO Common Birds Census Instructions*. BTO, Tring.

UK Biodiversity Group (1998) *Tranche 2 Action Plans Volume 1*. English Nature, Peterborough.

www.ukbap.org.uk– UK Biodiversity Web Site managed by JNCC.

Figures

Figure 1 (a - c)

Breeding Bird Surveys

Appendices

List of Bird Species on the Hydrus Project Site 2009

List of all bird species (BTO codes in parentheses) present on site and respective activities (b = breeding, f = foraging or flying over the site).

- (B.) Blackbird (*Turdus merula*) – b
- (BC) Blackcap (*Sylvia atricapilla*) – b
- (BT) Blue Tit (*Parus caeruleus*) – b
- (C.) Carrion Crow (*Corvus corone*) - f
- (CH) Chaffinch (*Fringilla coelebs*) – b
- (CC) Chiffchaff (*Phylloscopus collybita*) - b
- (CT) Coal tit (*Periparus ater*) - f
- (D.) Dunnock (*Prunella modularis*) – b
- (GT) Great Tit (*Parus major*) - f
- (GS) Great Spotted Woodpecker (*Dendrocopus major*) - f
- (GR) Greenfinch (*Carduelis chloris*) – f
- (G.) Green woodpecker (*Pica viridis*) - f
- (H.) Grey heron (*Ardea cinerea*) – f
- (HG) Herring gull (*Larus argentatus*) – f
- (JD) Jackdaw (*Corvus monedula*) - b
- (J.) Jay (*Garullus glandarius*) - f
- (MG) Magpie (*Pica pica*) – f
- (MA) Mallard (*Anas platyrhynchos*) – f
- (NH) nuthatch (*Sitta europaea*) - b
- (R.) Robin (*Erithacus rubecula*) – b
- (S.) Skylark (*Alauda arvensis*) - f
- (SD) Stock dove (*Columba oenas*) - f
- (WP) Woodpigeon (*Columba palumbus*) – b
- (WW) Willow warbler (*Phylloscopus trochilus*) - f
- (WR) Wren (*Troglodytes troglodytes*) – b