

Appendix 12-E Birds

12-E.1 Introduction

12-E.1.1 This breeding birds survey was carried out by Ecological Survey & Assessment (ECOSA) during 2005 and 2006.

12-E.1.2 The habitat either side of the Scheme is very variable encompassing areas of mature woodland, seasonally flooded grazing marsh, improved grassland (which is grazed by livestock or cut for hay and silage), arable farmland growing winter oilseed rape or winter wheat (often bordered by diverse well structured hedgerows) and some sections of disused railway line bordered by tall shrubs and trees.

12-E.1.3 The majority of the Scheme is located above the valley of the Combe Haven river, crossing arable farmland and fields of improved grassland. However, between Adam's Farm and Acton's Farm the Scheme descends to the Combe Haven river where grazing marsh bordered by deep drains (lined with sedge and reeds) is the main habitat. These areas are particularly important for riparian breeding species such as Reed Warbler (*Acrocephalus scirpaceus*) and Sedge Warbler (*Acrocephalus schoenobaenus*). The final, western-most section from Sidley runs through an urban environment following the disused railway line into Bexhill. This railway is dominated by mature Ash (*Fraxinus excelsior*) and woodland bird communities are present.

12-E.2 Methods

Introduction

12-E.2.1 This section discusses the survey methodology used during the breeding bird survey along the route of the Scheme.

Breeding Bird Survey Methodology

12-E.2.2 The area surveyed encompassed all habitat within approximately 150m either side of the centreline of the Scheme and as a result a 300m strip of habitat was surveyed along the length of the Scheme.

12-E.2.3 The breeding bird survey was carried out in accordance with standard Common Bird Census (CBC) methodology. There were no significant deviations from the CBC methodology, with the exception that the overall number of survey visits was reduced to four per year rather than 10. This reduction in the number of visits was applied because of the relative simplicity of the habitat structure meaning that a high degree of confidence could be placed in the survey coverage. Survey visits were carried out in May and June in 2005 and April, May and June in 2006. The survey focused primarily upon species included within the Red List and Amber List categories of Birds of Conservation Concern as devised by the British Trust for Ornithology (BTO). More detail on these categories is given in Appendix 11-2A of the ES. However, all other bird species seen or heard in the survey area were recorded.

12-E.2.4 During each visit the route of the Scheme was walked and the position of each bird seen was marked accurately on a visit map. Particular importance was placed on the location of individuals of the same species that could be heard or seen simultaneously and those showing signs of holding territory or breeding. After two visits, information for each species was transferred from the visit maps

to a separate map. Clusters of registrations on this map corresponded to the activity within a territory of a pair of birds, although with some species this varies with biology. The maps were then analysed to determine the number of pairs of each species present, a process open to subjectivity in interpretation, and a dot placed on the map to indicate the 'centre' of a territory. These maps were then taken into the field and 'proofed' against birds actually present and the maps adjusted accordingly. This has allowed a high degree of accuracy in actual numbers of breeding birds on the site to be obtained.

12-E.2.5 Species were only regarded as holding territory if a cluster of sightings was composed of more than one registration i.e. at least one of a pair was recorded in the same area on more than one visit. Additional information used to determine the presence of nesting birds included discovery of an occupied nest, finding of eggshells within a territory of the species concerned, recently fledged birds and adult birds collecting food or nest material.

12-E.2.6 No dusk or night-time surveys were carried out so that nocturnal species on the site will be under represented. However, during bat surveys carried out in June and July of 2005 and 2006 any nocturnal species of note were recorded.

12-E.2.7 Details of dates of survey visits, start and finish times and weather conditions are presented in Table 12-E.1.

Table 12-E.1 Visit Dates and Weather Conditions during Breeding Bird Survey

Visit	Visit Date	Start Time	Weather Conditions (at start)	Finish Time	Weather Conditions (at finish)
A	13 May 2005	05:00	10% cloud cover Wind NE 2 Warm and sunny initially	12:50 pm	10% cloud cover, Wind NE 4 Cooler, with increasing wind speed
B	23 May 2005	05:30	10% cloud cover Wind SW 2 Cool, then warmer and sunny	13:20 am	30% cloud cover Wind SW 3 Warm and sunny
C	29 May 2005	05:32	10% cloud cover Still, no wind Sunny, warm	12:45 pm	10% cloud cover Still, no wind Sunny, warm
D	7 June 2005	05:30	0% cloud cover Still, no wind Warm, humid	13:00 pm	0% cloud cover Still, no wind Sunny, Warm, humid

E	April 7 2006	06:30	Cloudy and cool at first.	11:30	Warmer with sunshine
F	May 8 2006	06:30	Rain, heavy and thundery at times.	11:30	Brighter
G	May 30 2006	06:30	Clear and calm until with sunny spells.	11:30	Warm and sunny
H	June 26 2006	06:30	Light rain and broken cloud.	11:30	Warm and sunny.

Basis for Assessment

12-E.2.8 The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds that are regularly found in the UK. A total of 247 species were assessed and each placed onto one of three categories of conservation importance - Red, Amber and Green. In total 40 species are Red-listed, 121 are Amber-listed and 86 are Green-listed. Seven quantitative criteria were used to assess the population status of each species and place it onto the Red list, which are species of the highest conservation importance, followed by Amber then Green list species. This criteria is explained in more detail in the Legislation Appendix 11-2A of the ES and has been used in the assessment of the bird populations found on the site.

12-E.3 Results

Introduction

12-E.3.1 This section discusses Red and Amber listed species recorded as holding territory along the route of the Scheme. Figure 11-5A shows the location of all territories recorded in 2005 and Figures 11-5A.2 and 11-5A.3 show the location of Red and Amber listed species recorded in 2006.

Red List Species Recorded

12-E.3.2 The following Red List Species were recorded: Skylark *Alauda arvensis*, Song Thrush *Turdus philomelas*, Starling *Sturnus vulgaris*, House Sparrow *Passer domesticus*, Linnet *Acanthus cannabina*, Bullfinch *Pyrrhula pyrrhula*, Yellowhammer *Emberiza citrinella* and Reed Bunting *Emberiza schoeniclus*.

Turtle Dove

2005

12-E.3.3 This species was not recorded in 2005.

2006

12-E.3.4 This shy species prefers open-country with areas of thick cover but was absent from the area of survey, except for a single singing bird on May 30th, at the extreme eastern end of the Scheme. It is a summer migrant to Britain, with most birds arriving from mid-May onwards, and the bird recorded during the survey may have been a migrant which subsequently moved on.

Skylark

2005

12-E.3.5 A minimum of 6 territories were recorded in areas of grazing marsh and improved grassland adjacent to the Combe Haven river, only one territory was located away from this area.

2006

12-E.3.6 A total of 4 territories were recorded in 2006, a slight decline from 2005. Those territories present were concentrated on an area of arable fields and rough pasture near the middle section of the Scheme, between Acton's Farm and Adam's Farm. Three of the four territories were in a cluster south of the middle section of the Scheme, near Watermill Stream southwest of Adam's Farm. The fourth territory was south of the western end of the Scheme, southwest of Acton's Farm.

12-E.3.7 In arable areas the species is mobile as a breeding species since birds are heavily reliant on the grassland structure and will move from year to year according to the suitability of the habitat. However, within more established grassland the distribution of birds will be more stable as there is less annual change in the grassland structure when compared to an arable cropping regime.

Song Thrush

2005

12-E.3.8 A total of 7 territories were recorded these were mainly present in woodland and mature hedgerows across the much of the site.

2006

12-E.3.9 A total of 10 territories were recorded in 2006 it present in virtually all areas where substantial enough cover exists. There were occupied territories from the railway cutting at the western end to the woodland northwest of Acton's Farm, then from Adam's Farm to the area east of the railway cutting at the eastern end.

Starling

2005

12-E.3.10 A total of 6 pairs were recorded mainly in farm buildings and mature hedgerow trees. Birds were recorded foraging with fledged young in grassland and paddocks.

2006

12-E.3.11 Only 2 territories were recorded in 2006 these were present at the western end of the Scheme, where at least one pair occupied a territory at the edge of the housing estate north of the railway cutting, and toward the eastern end of the Scheme, where one pair occupied a territory in a copse. The presence of small mixed flocks of adults and juveniles in fields along the western half of the Scheme, observed during June, suggested that several more pairs of this species bred in nearby woodlands and/or human settlements.

House Sparrow

2005

12-E.3.12 A total of 17 pairs were recorded, mainly associated with the farm buildings and housing adjacent to the Scheme. Foraging birds utilise hedgerows and crops to supply their young with insects.

2006

12-E.3.13 This species was present where human habitation exists along the Scheme. It was present in unknown numbers in the housing estate north of the railway cutting at the western end of the Scheme, and in small colonies containing approximately 2-10 pairs at Acton's, Adam's and Upper Wilting Farms.

Linnet

2005

12-E.3.14 A minimum of 7 territories were recorded mainly associated with fallow areas of land for feeding and with the more mature hedges and scrub for breeding. There is a bias in breeding distribution to the western end of the Scheme. Several pairs may be displaced by the Scheme. However, suitable habitat is abundant and the displaced pairs should be able to establish new territories particularly if suitable mitigation is instigated.

2006

12-E.3.15 Only 2 territories were present in 2006, these were to the southwest of Acton's Farm and near the footbridges over Watermill Stream, to the south of the middle section of the Scheme. It sometimes breeds in small, loose colonies, but there appeared to be just single pairs at these two sites.

Bullfinch

2005

12-E.3.16 A total of 2 territories were present along the Scheme, both associated with dense scrub and woodland along the disused railway. One territory may be displaced at the western end of the Scheme where the route follows the disused railway line.

2006

12-E.3.17 During 2006 there were again two occupied territories along the route of the Scheme. Two sightings at Upper Wilting Farm suggested a territory was occupied there, while another pair seen on one occasion west of Adam's Farm may have also been in an occupied territory.

Yellowhammer

2005

12-E.3.18 A minimum of 17 territories were generally distributed along the Scheme. Whilst some territories will be lost due to the Scheme a large number of pairs will be unaffected.

2006

12-E.3.19 A total of 13 occupied territories were present along the route of the Scheme, the highest density was present through the middle section of the Scheme. The actual line of the Scheme passes through six territories, while six were to the south and one to the north.

Reed Bunting

2005

12-E.3.20 A total of 8 pairs were recorded during the survey. All were associated with riparian scrub and grassland in the floodplain of the Combe Haven river although one pair bred in a large oilseed rape field south of Hillcroft Farm.

2006

12-E.3.21 Six of the 7 occupied territories were near Watermill Stream, south of the middle section of the Scheme, between Acton's and Adam's Farms, with the seventh along a ditch north of the stream.

Amber List Species Recorded

12-E.3.22 The following Amber List Species were recorded:- Mute Swan *Cygnus olor*, Kestrel *Falco tinnunculus*, Black-headed Gull *Larus ridibundus*, Herring Gull *Larus argentatus*, Stock Dove *Columba oenas*, Cuckoo *Cuculus canorus*, Barn Owl *Tyto alba*, Green Woodpecker *Picus viridis*, Sand Martin *Riparia riparia*, Swallow *Hirundo rustica*, House Martin *Delichon urbica*, Meadow Pipit *Anthus pratensis*, Yellow Wagtail *Motacilla flava*, Dunnock *Prunella modularis*, Stonechat

Saxicola torquata, Mistle Thrush Turdus viscivorus and Hawfinch (Coccothraustes coccothraustes).

Mute Swan

2005

12-E.3.23 One pair bred on the Combe Haven river. The species is unlikely to be affected by the Scheme unless drainage and run-off affects water quality in the area utilised by the birds.

2006

12-E.3.24 A single bird was seen on Watermill Stream south of Adam's Farm and south of the Scheme, on May 30th. This bird may have been breeding nearby, perhaps further east along the stream.

Black-headed Gull

12-E.3.25 In both years few single birds were observed foraging over the farmland along the middle section of the Scheme. This species breeds in colonies near large water bodies or marshes, especially near the coast.

Herring Gull

12-E.3.26 In both years up to 50 birds at a time were observed foraging in fields along the middle and western sections of the Scheme. This species breeds in colonies along the nearby coast.

Kestrel

2005

12-E.3.27 The species was not recorded breeding.

2006

12-E.3.28 This open-country species occupied a territory which at least overlapped the eastern end of the Scheme, where the rough pasture, railway cutting and road verges provide suitable foraging areas.

Stock Dove

2005

12-E.3.29 This species prefers open woods and open country with large, mature trees in which there are holes for it to nest in. One pair bred in barns at Glover's Farm.

2006

12-E.3.30 Two occupied territories were recorded along the line of the middle section of the Scheme. However, this is a shy, unobtrusive species, often seen only in flight, between foraging and breeding areas, and since several birds were seen in flight on most visits, it is reasonably safe to assume that several more occupied territories exist to the north and south of the Scheme.

Cuckoo

2005

12-E.3.31 A single calling bird was noted in woodland adjacent to Adam's Farm during one visit. The species requires areas with extensive grassland and scrub with established hedgerows which support host species such as Dunnock, Meadow Pipit and Whitethroat.

2006

12-E.3.32 No more than one calling bird was recorded per visit and it seems reasonably safe to assume that just one pair was present along the middle section of the Scheme. As a breeding bird this is a wide ranging bird and as a result it is difficult to define territories, the species is not shown on Figure 11-5A.3.

Barn Owl

12-E.3.33 No nesting birds were confirmed in either 2005 or 2006 but the species was regularly seen hunting over the rough grassland of the floodplain between Acton's Farm and Adam's Farm. It is probable that the species nests within farm buildings or dead trees in the area. The species is listed under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) and under this act is afforded additional protection against disturbance at the nest. Further information is given in the Legislation Appendix (Appendix 11-2A) of the ES.

Green Woodpecker

2005

12-E.3.34 Two pairs were present and were regularly seen foraging in grassy paddocks at either end of the Scheme. Both pairs bred in large trees in the hedgerows bordering the paddocks.

2006

12-E.3.35 This species prefers open woods and farmland with large, mature trees in which there are holes for it to nest in. There were three occupied territories along the Scheme: in woodland north of the route, northwest of Acton's Farm; in a copse south of the route, east of Adam's Farm; and in the woodland north of the route, north of Upper Wilting Farm. One of this species' main food supplies is ants, hence they forage on open ground and were seen doing so along much of the Scheme.

Sand Martin

12-E.3.36 No breeding sites recorded, the only birds recorded were foraging alongside the Combe Haven river with a maximum of 8 seen on 21st May 2005 these may have been migrant birds.

Swallow

2005

12-E.3.37 This open-country species now almost exclusively nests in old or open buildings, especially those associated with farms. A total of 3 pairs were recorded and were associated with out-buildings at Acton's Farm (2 pairs) and Adam's Farm (1 pair).

2006

12-E.3.38 In 2006 2 pairs were recorded at Acton's and Adam's Farms, with an additional nest site being under one of the footbridges across Watermill Stream to the south of the middle section of the Scheme. It often nests in small colonies but just single pairs appeared to occupy the three sites here.

House Martin

12-E.3.39 No breeding sites were recorded along the route of the Scheme. Many birds forage over the Combe Haven floodplain presumably originating from nest sites in Hastings and Bexhill.

Meadow Pipit

2005

12-E.3.40 One pair was recorded in grassland within the floodplain. These birds require open grassland with a varied structure. Providing such habitat is maintained there should be no impact on the species.

2006

12-E.3.41 There was one occupied territory along the Scheme, in rough pasture by Watermill Stream to the south of the Scheme between Acton's and Adam's Farms.

Yellow Wagtail

12-E.3.42 A single male was recorded during the first survey visit in 2005 feeding in improved grassland with cattle west of Upper Wilting Farm. This is likely to have been a migrant bird as no further observations were made during the breeding season in 2005 or 2006.

Duncock

2005

12-E.3.43 A minimum of 17 pairs were recorded, all associated with the denser hedgerows, gardens and scrub. Although there will be loss of hedgerows and scrub along the route of the Scheme the species readily adapts to areas of planted scrub and therefore loss of habitat will be readily mitigated.

2006

Seventeen pairs were again present along the route of the Scheme.

Stonechat

2005

12-E.3.44 A single pair raised three young in a rape field to the south of Hillcroft Farm. This species is usually associated with heathland, downland, uplands and scrubby habitats.

2006

12-E.3.45 One pair again occupied a territory to the south of Hillcroft farm along Watermill Stream between Acton's and Adam's Farms, and successfully raised at least two young.

Mistle Thrush

2005

12-E.3.46 A total of 3 pairs bred along the route these were associated with paddocks, set-aside and grassland areas close to mature hedgerows or woodland. Loss of sufficiently mature woodland and hedgerows will be minimal and it is unlikely that there will be a significant impact on the species.

2006

12-E.3.47 A single territory was present, a bird seen carrying food in flight and heading toward the railway cutting at the eastern end of the Scheme suggested there was an occupied territory there or in the woodland to the east.

Goldcrest

2005

12-E.3.48 The species was not recorded as breeding in 2005.

2006

12-E.3.49 There were three occupied territories along the Scheme: along the public footpath at Acton's Farm, south of the Scheme; on the railway embankment east of Adam's Farm, on the Scheme; and in the woodland west of Upper Wilting Farm, north of the Scheme.

Hawfinch

12-E.3.50 This species is very shy and elusive, especially during its breeding season. It nests in mature deciduous and mixed woods, present alongside the Scheme, but it is sparsely distributed. A single bird was observed flying high north-northwest on April 7th 2006. This was probably a migrant, moving from a wintering area to a breeding area, perhaps even Fore Wood, an RSPB reserve a few miles north-northwest of the proposed route, where this species is known to breed.

Other Species

12-E.3.51 From the survey in 2005, of the species recorded which are not listed as Conservation Concern i.e. green listed, Common Whitethroat *Sylvia communis* was the most abundant with 18 pairs noted in hedgerows, drain edges and scrub throughout the Scheme. Other species recorded were feral Canada Goose *Branta canadensis* 1 pair, Mallard *Anas platyrhynchos* 3 pairs, Sparrowhawk *Accipiter nisus* although breeding was not confirmed, Pheasant *Phasianus cochicus*, Moorhen *Gallinula chloropus*, Coot *Fulica atra*, Wood Pigeon *Columba palumbus*, Common Swift *Apus apus*, Great-spotted Woodpecker *Dendrocopos major* 3 pairs, Pied wagtail *Motacilla alba*, Wren *Troglodytes troglodytes*, Robin *Erithacus rubecula*, Blackbird *Turdus merula*, Sedge Warbler *Acrocephalus schoenobaenus* 4 pairs confined to the ditches of the flood plain, Reed Warbler *Acrocephalus scirpaceus* 7 pairs confined to the ditches of the flood plain, Lesser Whitethroat *Sylvia curruca* 3 pairs in mature hedgerows to the west of the Combe Haven river, Garden Warbler *Sylvia borin* 1 pair, Blackcap *Sylvia atricapilla* 6 pairs, Chiffchaff *Phylloscopus collybita* 5 pairs, Long-tailed Tit *Aegithalos caudatus* 1-2 pairs, Blue Tit *Parus caeruleus*, Great Tit *Parus major*, Eurasian Jay *Garrulus glandarius*, Magpie *Pica pica*, Eurasian Jackdaw *Corvus monedula*, Carrion Crow *Corvus corone*, Chaffinch *Fringilla coelebs*, Greenfinch *Carduelis chloris*, and Goldfinch *Carduelis carduelis*.

12-E.3.52 In the 2006 survey, the following Green Listed species were recorded as breeding:

Mallard <i>Anas platyrhynchos</i>	1
Sparrowhawk <i>Accipiter nisus</i>	1
Moorhen <i>Gallinula chloropus</i>	3
Wood Pigeon <i>Columba palumbus</i>	10+
Large flocks of this species were observed on the site and many more pairs almost certainly breed nearby.	
Collared Dove <i>Streptopelia decaocto</i>	5
Great Spotted Woodpecker <i>Dendrocopos major</i>	2
Pied Wagtail <i>Motacilla alba</i>	1
Wren <i>Troglodytes troglodytes</i>	40
Robin <i>Erithacus rubecula</i>	31
Blackbird <i>Turdus merula</i>	21
Sedge Warbler <i>Acrocephalus schoenobaenus</i>	3

As with the following species all three territories were situated in the valley along or near Watermill Stream, south of the Scheme.

Reed Warbler *Acrocephalus scirpaceus* 2

As with the preceding species both territories were situated in the valley along or near Watermill Stream, south of the Scheme.

Whitethroat *Sylvia communis* 10

Blackcap *Sylvia atricapilla* 14

Chiffchaff *Phylloscopus collybita* 13

Long-tailed Tit *Aegithalos caudatus* 3

Blue Tit *Parus caeruleus* 8

Great Tit *Parus major* 12

Nuthatch *Sitta europaea* 1

Jay *Garrulus glandarius* 2+

This species rarely sings (and then, in late winter only) and is very shy when breeding but birds were recorded on several occasions indicating the presence of at least two territories.

Magpie *Pica pica* 5+

This species rarely sings and without special attention their territories are difficult to pin down during the breeding season. They were recorded frequently on the site though and at least five pairs probably breed.

Jackdaw *Corvus monedula*

This is a noisy species but it does not sing and without special attention their territories are difficult to pin down during the breeding season. It was recorded frequently on the site, sometimes in large numbers, indicating the presence of many pairs in the area, some of which may be on site.

Carrion Crow *Corvus corone* 5+

This species' commonest call also functions as its song but it is so wide-ranging that territories are difficult to determine during the breeding season. It was recorded frequently on the site, sometimes in pairs, indicating the presence of perhaps several territories.

Chaffinch *Fringilla coelebs* 30

Greenfinch *Carduelis chloris* 3

12-E.3.53 Other species recorded in 2006 included:

Heron *Ardea cinerea*

One or two individuals were recorded on most visits, foraging at ponds and along ditches, suggesting the species breeds nearby.

Hobby *Falco subbuteo*

Two individuals were observed on May 30th, one foraging along the valley south of Adam's Farm and one flying southwest over Upper Wilting Farm toward the valley. The insect life of the valley, particularly dragonflies, is likely to attract these birds throughout the summer and early autumn, and the species may breed nearby.

Swift *Apus apus*

Several flocks, ranging in size from five to ten or so, were observed foraging over the site. It may breed nearby but this species ranges far and wide when foraging.

Lesser Whitethroat *Sylvia curruca*

The three singing males recorded on May 30th may have been migrants, for they were not heard on the next visit, June 26th. However, this is an unobtrusive species which breeds in thick, mature hedgerows and the presence of much suitable habitat on the site suggests at least a few pairs may breed.

Coal Tit *Parus ater*

One individual heard on one occasion only, albeit in suitable breeding habitat.

Goldfinch *Carduelis carduelis*

This species was recorded on a few occasions, usually landing briefly in trees before flying off or just flying over. However, bearing in mind these sightings, the presence of much suitable breeding habitat on the site suggests at least two pairs may breed, on the site or nearby.

12-E.4 Discussion

12-E.4.1 Whilst the Combe Haven river valley in general holds breeding bird populations which are probably of local significance, very few territories of species of Red or Amber conservation concern would directly be affected by the Scheme, although impacts due to increased traffic mortality, and habitat severance will need to be considered. A comprehensive mitigation package should be devised so as to minimise impact on breeding birds whilst improving resources available to them, in outline this should include;

- All vegetation, and in particular grassland and hedgerow removal, should be carried out between September and February, inclusive, so as to avoid the breeding bird season. Should clearance need to be carried out outside of these months then there will be a requirement for an ecologist to supervise the work and any active nests would need to be retained within a buffer until nests are no longer in use.
- Disturbance to grassland, scrub and farm buildings adjacent to the road should be minimised and in order for this to be carried out it would be highly advantageous to compile a working procedure that illustrated those areas of significant value where disturbance must be minimised and safe working procedures followed.
- Barn owls utilise the flood plain area to hunt and this area would probably be found to form an important element of foraging habitat throughout the year. Since the species is prone to traffic mortality due to its slow and low flight it will be essential to minimise this risk. Wherever, the Scheme crosses suitable hunting habitat or commuting route a 'natural ramp' should be provided. This would consist of planting of trees of a sufficient height to force the birds to cross the road at a height which would reduce collision with traffic.
- All hedgerow and grassland removal should be mitigated by planting or sympathetic management of an area of equivalent or greater extent.

- Sympathetic management of grassland, ditches and hedgerows along the Scheme should be initiated through agreement with local landowners. This could involve conservation grazing of grassland, management of winter flooding into the grasslands in the flood plain, widening and sympathetic management of grassland, rotational management of hedgerows etc.