

APPENDIX I.4

BREEDING BIRD SURVEY

COVANTA EFW PROPOSED DEVELOPMENT

**MIDPOINT 18 DEVELOPMENT,
MIDDLEWICH, CHESHIRE
BREEDING BIRD SURVEY**

June 2008

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SECTION 1

INTRODUCTION

1 INTRODUCTION

1.1 Overview

1.1.1 PB was commissioned by Covanta Energy Ltd to carry out protected species surveys to support and inform a planning application for the development of land at Midpoint 18, Middlewich, and Cheshire into an Energy from Waste (EfW) facility.

1.1.2 It was identified within the Environmental Scoping Report (September 2007) that the site had potential to support breeding birds due to the types of habitat present on site.

1.1.3 Following consultation with the Borough Ecologist, it was agreed that a breeding bird survey be undertaken on the site. Therefore a more detailed assessment of the breeding bird assemblage was undertaken. The aim of the survey was to provide details of the species breeding and likely to be breeding within the site that would be subject to disturbance and habitat loss.

1.2 Site Context

1.2.1 The proposed site for the development is known as Plot 63 of the Midpoint 18 Industrial Park in Middlewich, Cheshire and is located adjacent to the end of Pochin Way at SJ 712,655. The proposed development site area is approximately 23 acres and consists of three distinct elongated fields. A branch line railway runs parallel to the west of the site; the south of the site is bounded by Cledford Lane; Pochin Way and Sanderson's Brook mark the eastern boundary of the proposed development site.

SECTION 2

METHODOLOGY

2 METHODOLOGY

2.1 Desk Study

2.1.1 A desk study was undertaken to inform the Environmental Scoping Report (September 2007) and confirmed the presence of several protected bird species within 1km of the proposed development area. The details of the desk study results are discussed further in section 3, below.

2.2 Field Survey

2.2.1 The method of survey used broadly followed the “Common Bird Census” (CBC) (Bibby et al. 1992). A total of 3 survey visits were undertaken between early May and late June 2008. The survey dates and times are presented in Table 1.

Table 1: Survey Details

Date	Survey time	Weather (wind speed measured in Beaufort Scale)	Notes
16.05.2008	06:45 – 08:45	Wind 1/ cloud 10%/ bright and dry/ temp approx 11 degrees Celsius	
23.05.2008	06:45 – 08:30	Wind 1/ cloud 60%/ overcast but dry/ temp approx 12 degrees Celsius	Unable to complete survey due to presence of travellers on site.
13.06.2008	07:00 – 08:45	Wind 1-2/ cloud 70%/ overcast but dry/ temp approx 12 degrees Celsius	

2.2.2 The start point of surveys was alternated across the site in order to ensure adequate coverage during the peak periods of bird activity.

2.2.3 On each survey, bird activity likely to indicate breeding was recorded on a visit map. The species of bird was noted using the standard British Trust for Ornithology (BTO) two letter codes.

2.2.4 Behaviour considered likely to indicate breeding included singing, display flights, mating and courtship displays, nesting, carrying of nesting material and birds showing fidelity to a particular patch of ground or vegetation.

2.2.5 The following definitions have been used to identify the breeding status of the species recorded:

- **Confirmed Breeding:** Includes species for which territories were positively identified as a result of the number of registrations (in this case two), the location of an active nest and the presence of recently fledged young or downy young;
- **Likely Breeding:** Includes a pair observed in suitable nesting habitat in breeding season, agitated behaviour or anxiety calls from adults, suggesting

probable presence of nest or young nearby. Behaviour was observed on insufficient occasions to confirm the presence of a territory;

- Possible Breeding: Includes species observed in breeding season in suitable nesting Habitat Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat; and
- Non-breeding: Fly-over species observed but suspected to be still on migration. Species observed but suspected to be summering non-breeder.

2.3 Data Evaluation

2.3.1 An assessment of the ornithological importance of the study area was made by evaluating the species recorded as breeding using the following criteria:

- Listed on Annex 1 of the EU Birds Directive (Directive 79/409/EEC);
- Listed on Schedule 1 of the Wildlife and Countryside Act (1981 as amended);
- UK Biodiversity Action Plan (UK BAP) (JNCC 2007) and Local Biodiversity Action Plan (LBAP) priority species;
- Included in Birds of Conservation Concern (BoCC) Red List (Gregory et al., 2002);
- Included in Birds of Conservation Concern (BoCC) Amber List (Gregory et al., 2002);

2.4 Survey Limitations

2.4.1 It was only possible to complete two surveys and one partial survey within the survey area. This was due to the presence of travellers on site during one of the survey visits thereby causing health and safety concerns for the surveyor and the survey was curtailed. During the survey visit however, approximately two thirds of the site was surveyed and therefore it is considered that the majority of species likely to be recorded during the visit were recorded.

SECTION 3

RESULTS

3 RESULTS

3.1 Desk Study

3.1.1 The desk study undertaken to inform the Environmental Scoping Report (September 2007) confirmed the presence of several bird species of conservation interest within 1km of the proposed development area. These included records of Schedule 1 wader species little ringed plover (*Charadrius dubius*), whimbrel (*Numenius phaeopus*), greenshank (*Tringa nebularia*) and green sandpiper (*Tringa ochropus*). These records were confined to the Cledford Lane Lime Beds Site of Biological Interest (SBI) which is situated just over the boundary and railway line to the west of the site. In addition, Barn owl (*Tyto alba*) was recorded roosting in buildings locally.

3.1.2 Whilst several protected bird species were highlighted in the desk study, all were recorded within the SBI and there were no habitats within the proposed development area that are similar to those provided at the Cledford Lane site. In addition, with specific reference to Barn Owl, no roosting or nesting sites for barn owl are present on site, and no field signs of the species were recorded during the survey.

3.2 Field Survey

3.2.1 A total of thirty bird species were recorded during the breeding bird survey. A full species list is provided in Annex B. Of the 30 species recorded, one species was confirmed as breeding, eleven species were likely breeding species, and four species were possible breeding species resulting in an assumed breeding bird assemblage of 16 species with the remaining 14 species considered to be non-breeding records.

3.2.2 The breeding bird survey identified that the species recorded broadly fell into three habitat types within the survey area. These areas were:

- Scrub and woodland;
- Grassland and agriculture; and
- Riparian.

3.2.3 Annex A: Figure 1 illustrates the location and general extent of the habitat types. A summary of the breeding status of these 30 species recorded, with the numbers of territories identified (or thought likely in the case of likely and possible) is provided in Table 2.

Table 2: Summary of breeding bird survey results at the proposed Covanta Energy from Waste survey area (■ = Present)

Species	Habitat Association	Breeding Status			Non-breeding
		Confirmed	Likely	Possible	
Mute swan	NA				■
Mallard	Riparian	0	1	1	
Cormorant	NA				■
Kestrel	NA				■
Lapwing	NA				■
Common sandpiper	NA				■
Feral pigeon	NA				■
Woodpigeon	NA				■
Swift	NA				■
Skylark	Grass/agriculture	0	1	0	
Swallow	NA				■
Pied wagtail	NA				■
Wren	Scrub/woodland	0	1	2	
Dunnock	Scrub/woodland	0	1	1	
Robin	Scrub/woodland	0	2	1	
Blackbird	Scrub/woodland	1	10	3	
Song thrush	Scrub/woodland	0	0	1	
Blackcap	Scrub/woodland	0	0	1	
Reed warbler	Riparian	0	2	0	
Whitethroat	NA				■
Chiffchaff	Scrub/woodland	0	2	1	
Blue tit	Scrub/woodland	0	6	2	
Great tit	Scrub/woodland	0	0	2	

Species	Habitat Association	Breeding Status			Non-breeding
		Confirmed	Likely	Possible	
Magpie	Scrub/woodland	0	2	1	
Jackdaw	Scrub/woodland	0	0	2	
Carrion crow	Scrub/woodland	0	2	0	
Starling	NA				■
Chaffinch	Scrub/woodland	0	2	4	
Goldfinch	NA				■
Reed bunting	Riparian	0	2	1	

3.3 Ornithological Conservation Evaluation

3.3.1 Of the 17 species identified as breeding four are considered to be of importance for nature conservation using the criteria listed in section 2.3. Table 3 summarises these four species together with conservation status assigned to them.

Table 3: Summary of breeding bird species of specific conservation value recorded at Covanta Energy from Waste Survey Area

Species	No. of Territories	Annex 1 EU Birds Directive ¹	Schedule 1 W&CA ²	UK BAP / LBAP Priority Species ³	Birds of Conservation Concern ⁴
Skylark	1			UK & L	Red
Duncock	2			UK	Amber
Song Thrush	1			UK & L	Red
Reed Bunting	3			UK & L	Red

Notes on Table xx:

¹. Species included on Annex 1 of the EU Birds Directive (79/409/EEC).

². Species protected by Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)

³. Priority Species in the UK Biodiversity Action Plan (JNCC 2007).

⁴. Species on the Birds of Conservation Concern Red list (Gregory *et al.*, 2002)

3.3.2 All four species are UK Biodiversity Action Plan (BAP) species. Three of these are Local BAP species. UKBAP/LBAP species are not afforded special protection but are considered to be under threat in a UK context and have action plans proposed or in place to promote the recovery of those species.

3.3.3 Three of the species recorded (skylark, song thrush and reed bunting) are included on the BoCC Red List. Red List species are those that:

- are globally threatened;
- have suffered a historical population decline in the period 1800-1995;
- have suffered a rapid (>50%) population decline in their UK breeding population over the last 25 years;
- have suffered a rapid (>50%) contraction in their UK breeding range over the last 25 year.

3.3.4 One species (dunnock) is included on the BoCC Amber List. Amber List species are those that:

- have suffered a moderate (25-49%) decline in their UK breeding population over the last 25 years;
- have suffered a moderate (25-49%) contraction in their UK breeding range over the last 25 years;
- are Species of European Conservation Concern (SPEC);
- have a five year mean of between 1 and 300 breeding pairs in the UK;
- have >50% of the UK breeding population in 10 or fewer sites;
- have >50% of the UK non-breeding population in 10 or fewer sites;
- have >20% of the European breeding population in the UK;
- have >20% of the NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in the UK.

3.3.5 The site supports a low number of breeding species of conservation importance. The number of species recorded in an area is a simple measure of diversity that can indicate its importance at each season of the year. Fuller (1980) gives the following breeding diversity criteria:

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

3.3.6 Based on Fuller's criteria, the breeding bird assemblage of the study area is of less than local importance. However, it should be noted that Fuller's analysis was developed in the 1970's. Since then species diversity has declined significantly. As a result, it is considered that Fuller's thresholds are too high for today's breeding bird populations. However given the very low number of species of conservation, it is considered that the breeding bird assemblage at the site is at most at the lower end of local importance.

- 3.3.7 Further to Fuller's criteria, the Nature Conservation Committee (NCC, now JNCC, 1989) identifies localities consisting of semi-natural habitats supporting at least 70 breeding species as being eligible for SSSI selection and therefore of National importance. With a breeding bird assemblage of 17 species, the study area falls considerably short of this status.

SECTION 4

EVALUATION & RECOMMENDATIONS

4 EVALUATION AND RECOMMENDATIONS

- 4.1.1 The breeding bird survey has identified that the survey area is of no greater than local importance for ornithology and supports four species of conservation interest.
- 4.1.2 The proposed development will result in the loss of the majority of grassland and scrub within the site boundary. However, the vast majority of species recorded within the survey area occurred within the habitats present on the peripheries of the site boundary and immediately adjacent to it. These peripheral habitats would not be lost as part of the proposed development, this includes the riparian corridor that supports the breeding reed bunting.
- 4.1.3 The loss of grassland habitat in the main portion of the site is likely to result in the loss of breeding habitat for skylark. Skylark are included in the UK BAP and require due consideration when determining a planning application under the provisions of PPS9 and the NERC Act, 2006. There are thought to be ~1million pairs of breeding skylark (BTO) in the UK and as such the single possible breeding pair recorded in the survey area equates to a very small fraction of the national population. Furthermore the habitats being utilised by skylark (agriculture) could change in any one season and as such the suitability as a breeding site is opportunistic. Given these factors and the suitability of alternative breeding habitat in the wider area the effects of habitat loss to skylark are considered to be negligible.
- 4.1.4 The loss of the scrub vegetation, including hedgerows, within the site boundary is likely to result in some loss of breeding habitat for common woodland birds including blackbird, blue tit and robin, as well as dunnock and song thrush. Dunnock and song thrush are included in the UK BAP and require due consideration when determining a planning application under the provisions of PPS9 and the NERC Act, 2006. However, the loss of the scrub vegetation within the site boundary is not considered significant as there is plentiful suitable habitat along the peripheral boundaries of the site to support these species.
- 4.1.5 Landscaping works as part of the proposed development have the potential to offer some ornithological benefits in the form of nesting and foraging habitat,
- 4.1.6 Furthermore, as the majority of the species recorded within the surveys occurred within habitats on the periphery of the site, it is recommended that all peripheral habitats be protected with fenced stand-off zones of approximately 10m providing protection of the breeding habitats during and following construction.
- 4.1.7 All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended). Damaging or destroying the nest of any wild bird (whilst being built or in use) is an offence under the Wildlife and Countryside Act 1981. Therefore, clearance of vegetation within the site boundary, or immediately adjacent to the site during the nesting season could result in an offence occurring under the Act.
- 4.1.8 In addition, to avoid offences under the Wildlife and Countryside Act 1981 in respect of nesting birds, it is recommended that
- Any vegetation clearance, or the demolition of buildings/structures in which birds are nesting, should be undertaken outside the breeding season. The bird breeding season can be taken to run between the 1 February and 31 August (in

practice, it is usually March to July and is subject to geographical and seasonal factors);

- If vegetation clearance or the demolition of buildings or structures outside the breeding season is not possible, further surveys for breeding birds should be carried out prior to any works being undertaken. Any such survey needs to be carried 24 hours prior to commencement of works in order to minimise opportunities for nest building between the survey and the start of works. Any nest in use or being built during this survey may need to be left undamaged for the entire nesting period and alternative approaches to the works proposed.

SECTION 5

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5 REFERENCES

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





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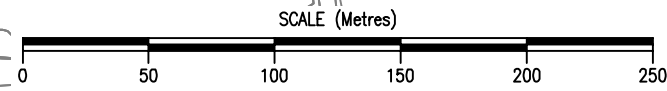
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ANNEX A

**FIGURE 1: BREEDING BIRD SURVEY
HABITATS TYPES**



- KEY:
-  RIPARIAN HABITAT
 -  SCRUB AND WOODLAND HABITAT
 -  GRASS/AGRICULTURAL HABITAT
 -  STANDING WATER
 -  RUNNING WATER
 -  DEVELOPMENT SITE BOUNDARY



REV	DATE	DESCRIPTION	BY	CHKD	APPD

NOTES
 REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. CROWN COPYRIGHT. LICENCE NUMBER: 0100031673



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CLIENT/PROJECT
COVANTA EIA PLANNING SUPPORT

TITLE
BREEDING BIRD SURVEY HABITAT TYPES

• DATE	11/12/08	DRAWN BY	BRG
• SCALE	1:3000 @ A3	PRODUCED BY	ES
• CAD REF	\\FSE\969\20C\Z\1\Eco\96920C-AnnA:Fig1	CHECKED	
		APPROVED	

• DRAWING NUMBER
ANNEX A: FIGURE 1

ANNEX B

BIRD SPECIES LIST FOR SITE

BIRD SPECIES LIST FOR SITE:

Vernacular Name	Latin Name
Mute swan	<i>Cygnus olor</i>
Mallard	<i>Anas platyrhynchos</i>
Cormorant	<i>Phalacrocorax carbo</i>
Kestrel	<i>Falco tinnunculus</i>
Lapwing	<i>Vanellus vanellus</i>
Common sandpiper	<i>Actitis hypoleucos</i>
Feral pigeon	<i>Columba livia (domest.)</i>
Woodpigeon	<i>Columba palumbus</i>
Swift	<i>Apus apus</i>
Skylark	<i>Alauda arvensis</i>
Swallow	<i>Hirundo rustica</i>
Pied wagtail	<i>Motacilla alba</i>
Wren	<i>Troglodytes troglodytes</i>
Dunnock	<i>Prunella modularis</i>
Robin	<i>Erithacus rubecula</i>
Blackbird	<i>Turdus merula</i>
Song thrush	<i>Turdus philomelos</i>
Blackcap	<i>Sylvia atricapilla</i>
Reed warbler	<i>Acrocephalus scirpaceus</i>
Whitethroat	<i>Sylvia communis</i>
Chiffchaff	<i>Phylloscopus collybita</i>
Blue tit	<i>Parus caeruleus</i>
Great tit	<i>Parus major</i>
Magpie	<i>Pica pica</i>
Jackdaw	<i>Corvus monedula</i>

Vernacular Name	Latin Name
Carrion crow	<i>Corvus corone</i>
Starling	<i>Sturnus vulgaris</i>
Chaffinch	<i>Fringilla coelebs</i>
Goldfinch	<i>Carduelis carduelis</i>
Reed bunting	<i>Emberiza schoeniclus</i>