

Annex 11.10

Breeding Bird Survey 2011

(S. Percival)

Able Marine Energy Park, Killingholme

Breeding bird survey 2011



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INTRODUCTION

1. A breeding bird survey was commissioned by Able UK Ltd. to provide information on the breeding bird interest of the Able Marine Energy Park [AMEP] at Killingholme, north Lincolnshire.
2. The specific objectives of this work were to:
 - Undertake breeding bird surveys of the AMEP site, to determine the numbers of birds present, and approximate breeding locations.
 - Undertake vantage point observations to quantify the rates of bird movement across the proposed development site and its surrounds;
 - Use this information to evaluate the importance of the site's breeding bird populations.
3. The vantage point surveys are ongoing through July and will be reported separately.

THE STUDY AREA

4. The site is located approximately 3km north of Immingham in north Lincolnshire. The breeding bird study area was chosen to include all areas within the potential zone of ornithological influence of the proposed development. This included all the land that is being considered for development, plus a 500m buffer around this (as per SNH guidance, Whitfield et al. 2005). The study area covered a total area of 6.4km² and included arable farmland, industrial development (much of the core of the site was used as temporary parking for imported cars and vans), the North Killingholme Haven Pits, the Rosper Road Pools and a narrow strip of coastal marsh.

BREEDING BIRD SURVEY

Main Breeding Bird Survey

5. The main breeding bird survey method followed the standard principles of the Common Birds Census; a walkover survey mapping all of the birds encountered (to 1:10,000 scale), recording their behaviour and location using the standard Common Birds Census notation. All species were recorded. Six survey visits were made, on 12 and 27 April, 10 and 25 May and 8 and 21 June 2011 (as per current NE guidance, Drewitt 2010). The surveys were carried out throughout daylight hours, avoiding strong winds, heavy rain, fog and low cloud. Birds were located by walking, listening and scanning by eye and with binoculars.

Species-specific Surveys

6. As it was possible that the study area may be used by breeding marsh harriers and barn owls, specific surveys for these species were undertaken, following the standard survey methodologies (Gilbert et al. 1998). In addition a programme of vantage point surveys were undertaken to quantify their flight activity over the study area (see following section).

Vantage Point Observations

7. Vantage point observations are being carried out during April - July 2011 to quantify bird flight activity over the development site and its surrounds. One vantage point was selected to give coverage of this area (on the raised bridge overlooking the site at TA167193). The flight observation methodology followed the standard SNH-recommended survey method (Madders, in Whitfield et al. 2005), though refined to record flight height estimates as accurately as possible rather than just summarising them to height classes. All the target species (see above) were mapped and the flight height of each flock recorded (estimated as accurately as possible using reference structures such as pylons). The activity during each flight (e.g. flying to roost, foraging) was also recorded. Particular attention was paid to any observations of birds at rotor height crossing the proposed wind farm site that would be at risk of collision. Overall 36 hours of flight observations will be obtained spread across the survey period and times of day (as recommended by SNH in their current guidance, Whitfield et al. 2005) during the April-July period. These surveys are ongoing and the results will be reported separately.

Breeding Bird Survey Results

8. The survey data for all of the bird species breeding on the site are summarised in Table 1, which gives the estimated number of breeding pairs recorded during each survey visit. A single record in potentially suitable breeding habitat on a single visit was considered sufficient to indicate a potential breeding attempt.

Table 1. Breeding bird population estimates at AMEP, Killingholme, 2011. Numbers given are the estimated number of breeding pairs recorded on each survey visit.

| Species | Survey date: | | | | | | Peak |
|---------------|--------------|----------|----------|----------|----------|----------|------|
| | 12/04/11 | 27/04/11 | 10/05/11 | 25/05/11 | 08/06/11 | 21/06/11 | |
| Mute Swan | 1 | 2 | 2 | 2 | 0 | 2 | 2 |
| Greylag Goose | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Shelduck | 7 | 10 | 18 | 13 | 9 | 7 | 18 |
| Gadwall | 2 | 1 | 1 | 0 | 0 | 0 | 2 |
| Teal | 1 | 2 | 0 | 0 | 0 | 0 | 2 |
| Mallard | 21 | 19 | 23 | 14 | 16 | 5 | 23 |
| Shoveler | 4 | 5 | 5 | 3 | 1 | 0 | 5 |
| Pochard | 2 | 2 | 0 | 1 | 1 | 0 | 2 |
| Tufted Duck | 1 | 1 | 4 | 2 | 2 | 0 | 4 |
| Red-legged | 15 | 10 | 6 | 7 | 5 | 2 | 15 |

| Species | Survey date: | | | | | | Peak |
|--------------------------|--------------|----------|----------|----------|----------|----------|------|
| | 12/04/11 | 27/04/11 | 10/05/11 | 25/05/11 | 08/06/11 | 21/06/11 | |
| Partridge | | | | | | | |
| Pheasant | 12 | 20 | 19 | 6 | 15 | 5 | 20 |
| Little Grebe | 0 | 2 | 1 | 1 | 1 | 0 | 2 |
| Marsh Harrier | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sparrowhawk | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| Buzzard | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Kestrel | 1 | 2 | 4 | 1 | 0 | 0 | 4 |
| Water Rail | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Moorhen | 8 | 4 | 4 | 4 | 3 | 6 | 8 |
| Coot | 5 | 9 | 5 | 5 | 6 | 3 | 9 |
| Oystercatcher | 1 | 4 | 4 | 4 | 3 | 4 | 4 |
| Avocet | 0 | 0 | 1 | 3 | 8 | 5 | 8 |
| Little Ringed Plover | 0 | 1 | 1 | 2 | 1 | 1 | 2 |
| Ringed Plover | 1 | 2 | 1 | 3 | 3 | 2 | 3 |
| Lapwing | 5 | 3 | 11 | 6 | 5 | 4 | 11 |
| Stock Dove | 2 | 4 | 8 | 3 | 11 | 11 | 11 |
| Woodpigeon | 92 | 98 | 54 | 75 | 77 | 101 | 101 |
| Collared Dove | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Great Spotted Woodpecker | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Skylark | 12 | 20 | 21 | 14 | 24 | 17 | 24 |
| Swallow | 2 | 11 | 18 | 15 | 5 | 6 | 18 |
| House Martin | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Meadow Pipit | 7 | 10 | 9 | 7 | 11 | 11 | 11 |
| Yellow Wagtail | 1 | 2 | 4 | 2 | 2 | 7 | 7 |
| Pied Wagtail | 6 | 5 | 7 | 4 | 3 | 7 | 7 |
| Wren | 15 | 21 | 31 | 22 | 28 | 22 | 31 |
| Duncock | 6 | 5 | 5 | 6 | 6 | 5 | 6 |
| Robin | 2 | 4 | 8 | 6 | 5 | 7 | 8 |
| Blackbird | 7 | 9 | 16 | 15 | 14 | 10 | 16 |
| Song Thrush | 1 | 5 | 8 | 3 | 3 | 2 | 8 |
| Mistle Thrush | 4 | 6 | 4 | 3 | 6 | 0 | 6 |
| Grasshopper Warbler | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sedge Warbler | 1 | 40 | 28 | 21 | 26 | 18 | 40 |
| Reed Warbler | 1 | 9 | 18 | 26 | 22 | 13 | 26 |
| Blackcap | 7 | 15 | 8 | 5 | 9 | 3 | 15 |
| Garden Warbler | 0 | 3 | 3 | 1 | 0 | 0 | 3 |
| Lesser Whitethroat | 0 | 11 | 10 | 10 | 5 | 9 | 11 |
| Common Whitethroat | 0 | 39 | 70 | 37 | 33 | 33 | 70 |
| Chiffchaff | 0 | 3 | 4 | 2 | 2 | 1 | 4 |

| Species | Survey date: | | | | | | Peak |
|--------------------|--------------|----------|----------|----------|----------|----------|------|
| | 12/04/11 | 27/04/11 | 10/05/11 | 25/05/11 | 08/06/11 | 21/06/11 | |
| Willow Warbler | 2 | 10 | 6 | 3 | 3 | 1 | 10 |
| Spotted Flycatcher | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Long-tailed Tit | 3 | 5 | 4 | 2 | 4 | 1 | 5 |
| Blue Tit | 9 | 11 | 9 | 8 | 9 | 8 | 11 |
| Great Tit | 3 | 8 | 8 | 7 | 5 | 3 | 8 |
| Willow Tit | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Treecreeper | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Magpie | 8 | 11 | 6 | 10 | 10 | 17 | 17 |
| Carrion Crow | 10 | 9 | 11 | 10 | 8 | 12 | 12 |
| Starling | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| House Sparrow | 0 | 3 | 3 | 2 | 0 | 3 | 3 |
| Tree Sparrow | 9 | 12 | 17 | 20 | 15 | 20 | 20 |
| Chaffinch | 30 | 41 | 31 | 44 | 32 | 21 | 44 |
| Greenfinch | 0 | 2 | 1 | 0 | 0 | 0 | 2 |
| Goldfinch | 10 | 14 | 16 | 22 | 15 | 8 | 22 |
| Linnet | 27 | 38 | 23 | 15 | 26 | 35 | 38 |
| Bullfinch | 0 | 4 | 1 | 1 | 3 | 3 | 4 |
| Yellowhammer | 2 | 3 | 5 | 4 | 10 | 4 | 10 |
| Reed Bunting | 4 | 11 | 14 | 21 | 14 | 14 | 21 |

9. Other species recorded over-flying/using the study area during the breeding bird surveys but not showing any evidence of breeding are shown in Table 2. The Table gives the number of each recorded during each surveys. Most of these were wetland waterfowl restricted to the inter-tidal area and North Killingholme Haven pits.

Table 2. Non-breeding bird count totals at AMEP, Killingholme, April-June 2011.

| Species | Survey date: | | | | | | |
|---------------------|--------------|----------|----------|----------|----------|----------|------|
| | 12/04/11 | 27/04/11 | 10/05/11 | 25/05/11 | 08/06/11 | 21/06/11 | Peak |
| Canada Goose | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Cormorant | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Little Egret | 0 | 1 | 0 | 1 | 2 | 0 | 2 |
| Grey Heron | 5 | 0 | 2 | 0 | 5 | 1 | 5 |
| Dunlin | 18 | 3 | 0 | 16 | 0 | 0 | 18 |
| Black-tailed Godwit | 248 | 32 | 21 | 1 | 1 | 3 | 248 |
| Bar-tailed Godwit | 130 | 96 | 135 | 106 | 82 | 119 | 135 |
| Whimbrel | 0 | 3 | 1 | 0 | 0 | 1 | 3 |
| Curlew | 81 | 47 | 54 | 10 | 0 | 26 | 81 |
| Greenshank | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Redshank | 60 | 0 | 0 | 0 | 0 | 3 | 60 |

| Species | Survey date: | | | | | | |
|--------------------------|--------------|----------|----------|----------|----------|----------|------|
| | 12/04/11 | 27/04/11 | 10/05/11 | 25/05/11 | 08/06/11 | 21/06/11 | Peak |
| Common Gull | 2 | 4 | 9 | 10 | 2 | 0 | 10 |
| Lesser Black-backed Gull | 0 | 5 | 0 | 0 | 2 | 0 | 5 |
| Herring Gull | 0 | 0 | 1 | 4 | 0 | 6 | 6 |
| Great Black-backed Gull | 8 | 11 | 0 | 0 | 1 | 2 | 11 |
| Black-headed Gull | 8 | 103 | 66 | 55 | 132 | 83 | 132 |
| Common Tern | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Turtle Dove | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Swift | 0 | 0 | 41 | 100 | 158 | 26 | 158 |
| Sand Martin | 0 | 5 | 1 | 2 | 1 | 2 | 5 |
| Wheatear | 7 | 1 | 0 | 2 | 0 | 0 | 7 |
| Jackdaw | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Rook | 0 | 0 | 0 | 0 | 5 | 1 | 5 |
| Siskin | 0 | 0 | 0 | 2 | 0 | 0 | 2 |

Conservation Evaluation

10. The sensitivity of the breeding bird populations was determined using the criteria specified in Table 3 (Percival 2007). This includes the criteria adopted by Natural England in Guidelines for Selection of Biological SSSIs (JNCC 1995), using 1% of the resource to define national and regional importance. The national and regional breeding populations were estimated from Baker *et al.* (2006) and Holling *et al.* (2010). A further category of 'local importance' was used for species that did not reach regional importance but were still of some ecological value. For bird species this included all species on the red or amber lists of the RSPB's *et al.*'s (Eaton *et al.* 2009) 'Birds of Conservation Concern' that did not reach national or regional importance at the site. In addition listing on Annex 1 of the EU Birds Directive, Schedule 1 of the Wildlife and Countryside, and the UK and Lincolnshire Biodiversity Action Plan [BAP] priority species were all considered in the evaluation process.

Table 3. Definition of terms relating to the sensitivity of the ecological components of the site.

| Sensitivity | Definition |
|-------------|--|
| VERY HIGH | Cited interest of SPAs, SACs and SSSIs. Cited means mentioned in the citation text for the site as a species for which the site is designated (SPAs/SACs) or notified (SSSIs). |

| Sensitivity | Definition |
|-------------|--|
| HIGH | Other species that contribute to the integrity of an SPA or SSSI. An impact on a local population of more than 1% of the national population of a species. Ecologically sensitive species, e.g. large birds of prey or rare birds (<300 breeding pairs in the UK). EU Birds Directive Annex 1, EU Habitats Directive priority habitat/species and/or W&C Act Schedule 1 species (if not covered above). |
| MEDIUM | Regionally important population of a species, either because of population size or distributional context. UK BAP priority species (if not covered above). |
| LOW | Any other species of conservation interest, e.g. species listed on the Birds of Conservation Concern not covered above, local BAP species. |

11. The conservation importance of the bird populations using the study area during the breeding season is summarised in Table 4. This Table includes all the species recorded breeding during the surveys.

Table 4. Conservation evaluation of the breeding bird populations in the AMEP Killingholme breeding bird study area, 2011.

| Species | Peak no. of breeding pairs | >1% regional population | EU Birds Directive Annex 1 | W and C Act Sch 1 | UK BAP sp | BoCC status [R]ed/[A]mber | Sensitivity |
|----------------------|----------------------------|-------------------------|----------------------------|-------------------|-----------|---------------------------|-------------|
| Mute Swan | 2 | | | | | | Nil |
| Greylag Goose | 1 | | | | | A | Low |
| Shelduck | 18 | ✓ | | | | A | Medium |
| Gadwall | 2 | ✓ | | | | A | Medium |
| Teal | 2 | | | | | A | Low |
| Mallard | 23 | | | | | A | Low |
| Shoveler | 5 | ✓ | | | | A | Medium |
| Pochard | 2 | ✓ | | | | A | Medium |
| Tufted Duck | 4 | | | | | A | Low |
| Red-legged Partridge | 15 | | | | | | Nil |
| Pheasant | 20 | | | | | | Nil |
| Little Grebe | 2 | | | | | A | Low |
| Marsh Harrier | 1 | | ✓ | ✓ | | A | Very high |
| Sparrowhawk | 1 | | | | | | Nil |
| Buzzard | 1 | | | | | | Nil |
| Kestrel | 4 | | | | | A | Low |
| Water Rail | 1 | | | | | | Nil |
| Moorhen | 8 | | | | | | Nil |
| Coot | 9 | | | | | | Nil |
| Oystercatcher | 4 | | | | | A | Low |
| Avocet | 8 | ✓ | ✓ | ✓ | | A | Very high |
| Little Ringed Plover | 2 | ✓ | | ✓ | | | High |
| Ringed Plover | 3 | ✓ | | | | A | Medium |
| Lapwing | 11 | | | | ✓ | R | Medium |
| Stock Dove | 11 | | | | | A | Low |
| Woodpigeon | 101 | | | | | | Nil |

| Species | Peak no. of breeding pairs | >1% regional popul- ation | EU Birds Directive Annex 1 | W and C Act Sch 1 | UK BAP sp | BoCC status [R]ed/ [A]mber | Sensitivity |
|-----------------------------|-------------------------------------|------------------------------------|----------------------------------|----------------------|--------------|-------------------------------------|-------------|
| Collared Dove | 3 | | | | | | Nil |
| Great Spotted Woodpecker | 1 | | | | | | Nil |
| Skylark | 24 | | | | ✓ | R | Medium |
| Swallow | 18 | | | | | A | Low |
| House Martin | 1 | | | | | A | Low |
| Meadow Pipit | 11 | | | | | A | Low |
| Yellow Wagtail | 7 | | | | ✓ | R | Medium |
| Pied Wagtail | 7 | | | | | | Nil |
| Wren | 31 | | | | | | Nil |
| Dunnock | 6 | | | | ✓ | A | Medium |
| Robin | 8 | | | | | | Nil |
| Blackbird | 16 | | | | | | Nil |
| Song Thrush | 8 | | | | ✓ | R | Medium |
| Mistle Thrush | 6 | | | | | A | Low |
| Grasshopper Warbler | 1 | | | | ✓ | R | Medium |
| Sedge Warbler | 40 | | | | | | Nil |
| Reed Warbler | 26 | | | | | | Nil |
| Blackcap | 15 | | | | | | Nil |
| Garden Warbler | 3 | | | | | | Nil |
| Lesser Whitethroat | 11 | | | | | | Nil |
| Whitethroat | 70 | | | | | A | Low |
| Chiffchaff | 4 | | | | | | Nil |
| Willow Warbler | 10 | | | | | A | Low |
| Spotted Flycatcher | 1 | | | | ✓ | R | Medium |
| Long-tailed Tit | 5 | | | | | | Nil |
| Blue Tit | 11 | | | | | | Nil |
| Great Tit | 8 | | | | | | Nil |
| Willow Tit | 1 | | | | ✓ | R | Medium |
| Treecreeper | 1 | | | | | | Nil |
| Magpie | 17 | | | | | | Nil |
| Carrion Crow | 12 | | | | | | Nil |
| Starling | 1 | | | | ✓ | R | Medium |
| House Sparrow | 3 | | | | ✓ | R | Medium |
| Tree Sparrow | 20 | | | | ✓ | R | Medium |
| Chaffinch | 44 | | | | | | Nil |
| Greenfinch | 2 | | | | | | Nil |
| Goldfinch | 22 | | | | | | Nil |
| Linnet | 38 | | | | ✓ | R | Medium |
| Bullfinch | 4 | | | | ✓ | A | Medium |
| Yellowhammer | 10 | | | | ✓ | R | Medium |
| Reed Bunting | 21 | | | | ✓ | R | Medium |

Note: Both of the 'very high' sensitivity species were classed as such as they are both qualifying features of the Humber Estuary SPA.

12. Two species were found breeding that were classed as very high sensitivity species, marsh harrier and avocet. Both are qualifying features of the Humber Estuary SPA, and are also specially protected from disturbance during breeding under Schedule 1 of the 1981 Wildlife and Countryside Act. Both were breeding within the North Killingholme Haven Pits (Figure 1).
13. One breeding species was classed as high sensitivity, little ringed plover. This is another species specially protected from disturbance during breeding under Schedule 1 of the 1981 Wildlife and Countryside Act. Two pairs were recorded breeding, both on the gravel car park in the western part of the proposed development site (Figure 2).
14. Twenty breeding species were classed as medium sensitivity: shelduck, gadwall, shoveler, pochard, ringed plover, lapwing, skylark, yellow wagtail, dunnoek, song thrush, grasshopper warbler, spotted flycatcher, willow tit, starling, house sparrow, tree sparrow, linnet, bullfinch, yellowhammer and reed bunting. Most were classed as medium sensitivity because of their listing on the UK Biodiversity Action Plan list of priority species, apart from shelduck, gadwall, shoveler, pochard and ringed plover, the populations of which were considered to be regionally important. They are mostly farmland species that have declined widely across Britain but are still common and widespread. A further 13 breeding species were classed as low sensitivity, through their listing on RSPB et al.'s (Eaton et al. 2009) amber lists of birds of conservation concern. The regionally important breeding waterfowl populations were largely found on North Killingholme Haven Pits and Rosper Road Pools, though the ringed plover were breeding on the gravel car park areas within the proposed development site and breeding shelduck were widely distributed over much of the open ground across the survey area (Figures 1 and 2). The UK BAP species were more widely distributed over the survey area, though with lower numbers on the more industrialised and temporary car parking areas (Figures 3-5).
15. Table 5 summarises the nature conservation importance of the other bird species that were observed during the breeding bird surveys but which showed no evidence of breeding within the survey area.

Table 5. Conservation evaluation of the non-breeding bird populations in the AMEP Killingholme breeding bird study area, April-June 2011.

| Species | Peak count | SPA sp ¹ | >1% regional population | EU Birds Directive Annex 1 | W and C Act Sch 1 | UK BAP sp | BoCC status [R]ed/[A]mber | Sensitivity |
|---------------------|------------|---------------------|-------------------------|----------------------------|-------------------|-----------|---------------------------|-------------|
| Canada Goose | 1 | | | | | | | Nil |
| Cormorant | 1 | | | | | | | Nil |
| Little Egret | 2 | | | ✓ | | | A | High |
| Grey Heron | 5 | | | | | | | Nil |
| Collared Pratincole | 1 | | | | | | | Nil |
| Dunlin | 18 | Q | | ✓ | | | R | Very high |
| Black-tailed | 248 | Q | | | ✓ | ✓ | R | Very high |

¹ Q = SPA qualifying species, A = SPA assemblage species

| Species | Peak count | SPA sp ¹ | >1% regional population | EU Birds Directive Annex 1 | W and C Act Sch 1 | UK BAP sp | BoCC status [R]ed/[A]mber | Sensitivity |
|--------------------------|------------|---------------------|-------------------------|----------------------------|-------------------|-----------|---------------------------|-------------|
| Godwit | | | | | | | | |
| Bar-tailed Godwit | 135 | Q | | ✓ | | | A | Very high |
| Whimbrel | 3 | A | | | ✓ | | R | Very high |
| Curlew | 81 | A | | | | ✓ | A | Very high |
| Greenshank | 1 | A | | | ✓ | | | Very high |
| Redshank | 60 | Q | | | | | A | Very high |
| Common Gull | 10 | | | | | | A | Low |
| Lesser Black-backed Gull | 5 | | | | | | A | Low |
| Herring Gull | 6 | | | | | ✓ | R | Low |
| Great Black-backed Gull | 11 | | | | | | A | Low |
| Black-headed Gull | 132 | | | | | | A | Low |
| Common Tern | 1 | | | ✓ | | | A | High |
| Feral Pigeon | 2 | | | | | | | Nil |
| Turtle Dove | 1 | | | | | 1 | R | Medium |
| Swift | 158 | | | | | | A | Low |
| Sand Martin | 5 | | | | | | A | Low |
| Wheatear | 7 | | | | | | A | Low |
| Jackdaw | 1 | | | | | | | Nil |
| Rook | 5 | | | | | | | Nil |
| Siskin | 2 | | | | | | | Nil |

16. The non-breeding birds seen included seven very high sensitivity Humber Estuary SPA species: dunlin, black-tailed godwit, bar-tailed godwit, whimbrel, curlew, greenshank and redshank. Two non-breeding species, little egret and common tern, were classed as high sensitivity as a result of their listing on Annex 1 of the EU Birds Directive. All of these species were found only on the intertidal mudflats, the North Killingholme Haven Pits or the Rosper Road Pools on the southern edge of the survey area.

17. The non-breeding species also included one medium sensitivity species (turtle dove, a UK BAP priority species) and eight low sensitivity species (listed on RSPB et al.'s, Eaton et al. 2009, amber lists of birds of conservation concern).

Conclusions

18. The survey area supported a range of important breeding birds, but most of these were found in the buffer zone around the development site rather than on the site itself. The North Killingholme Haven Pits had the highest level of breeding bird importance (including breeding marsh harrier and avocet, as well as being a roost site for a range of non-breeding SPA wader species), and the Rosper Road Pools held a regionally important breeding waterfowl community.
19. Within the development site itself the highest breeding bird interest was a range of wader species nesting on the open gravel areas, particularly little ringed plover and ringed plover. The farmland and hedgerow habitats held a breeding bird community typical of the region, including a range of UK BAP priority species.
20. Several species specially protected under Schedule 1 of the Wildlife and Countryside Act from disturbance during breeding were found during the 2011 surveys, including marsh harrier, avocet and little ringed plover, and given the habitat present it is possible that others such as barn owl and quail could breed there in the future. It would be important to ensure that no Schedule 1 species are disturbed during the breeding season, particularly during the construction phase of the development. Further surveys for these species should therefore be undertaken immediately prior to construction, if construction were planned for the bird breeding season (April-July). If any were found then potentially disturbing activities should be suspended for the breeding season within an appropriate zone (dependent on the location of the birds) in consultation with Natural England.
21. All birds' nests are protected from malicious destruction under the Wildlife and Countryside Act, so it would be necessary to ensure that this does not occur. If any construction works were scheduled for the bird breeding season (April-July), then a nest search would need to be undertaken of any areas that would be affected and any active nests found avoided until the breeding attempt had been completed.

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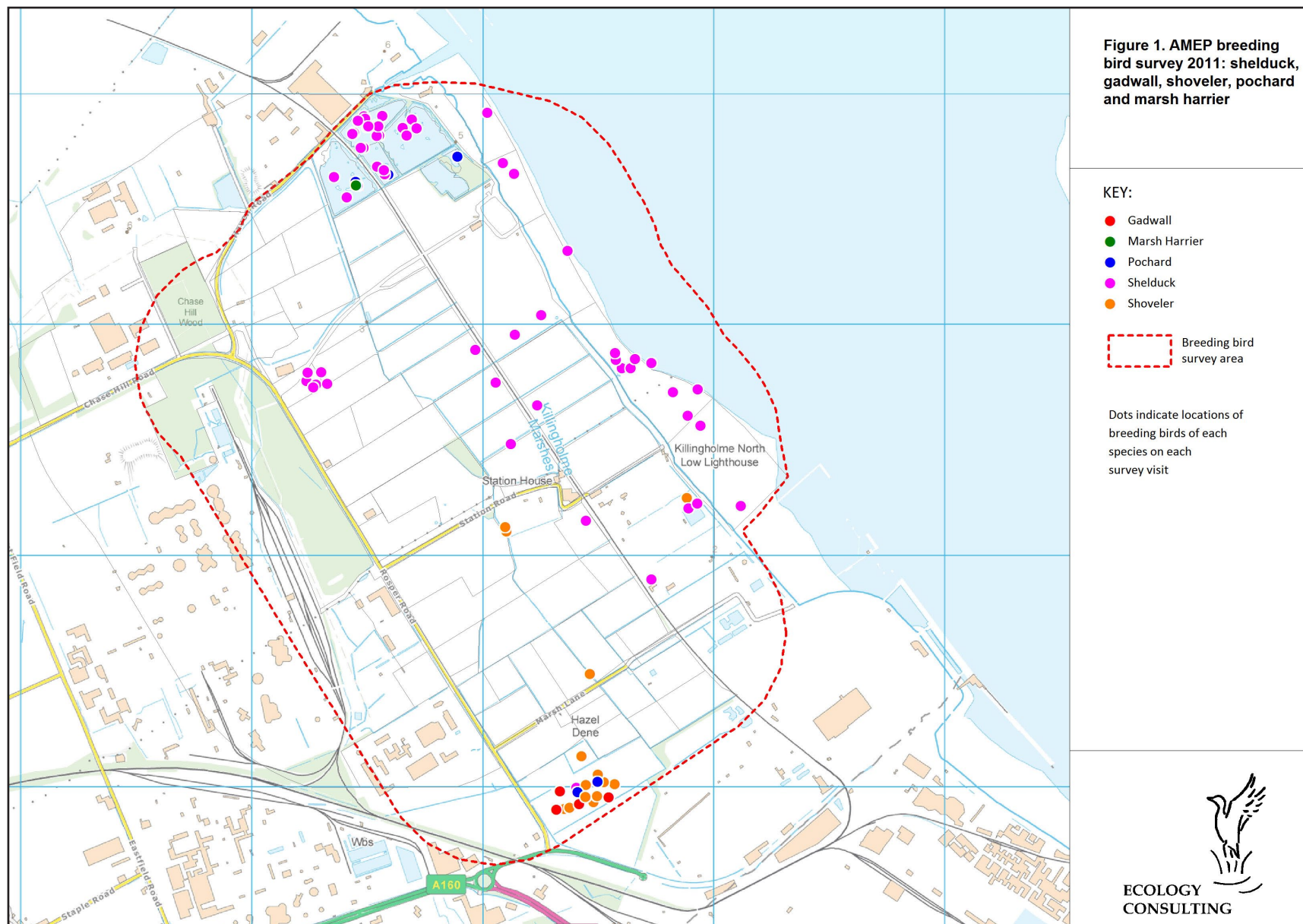
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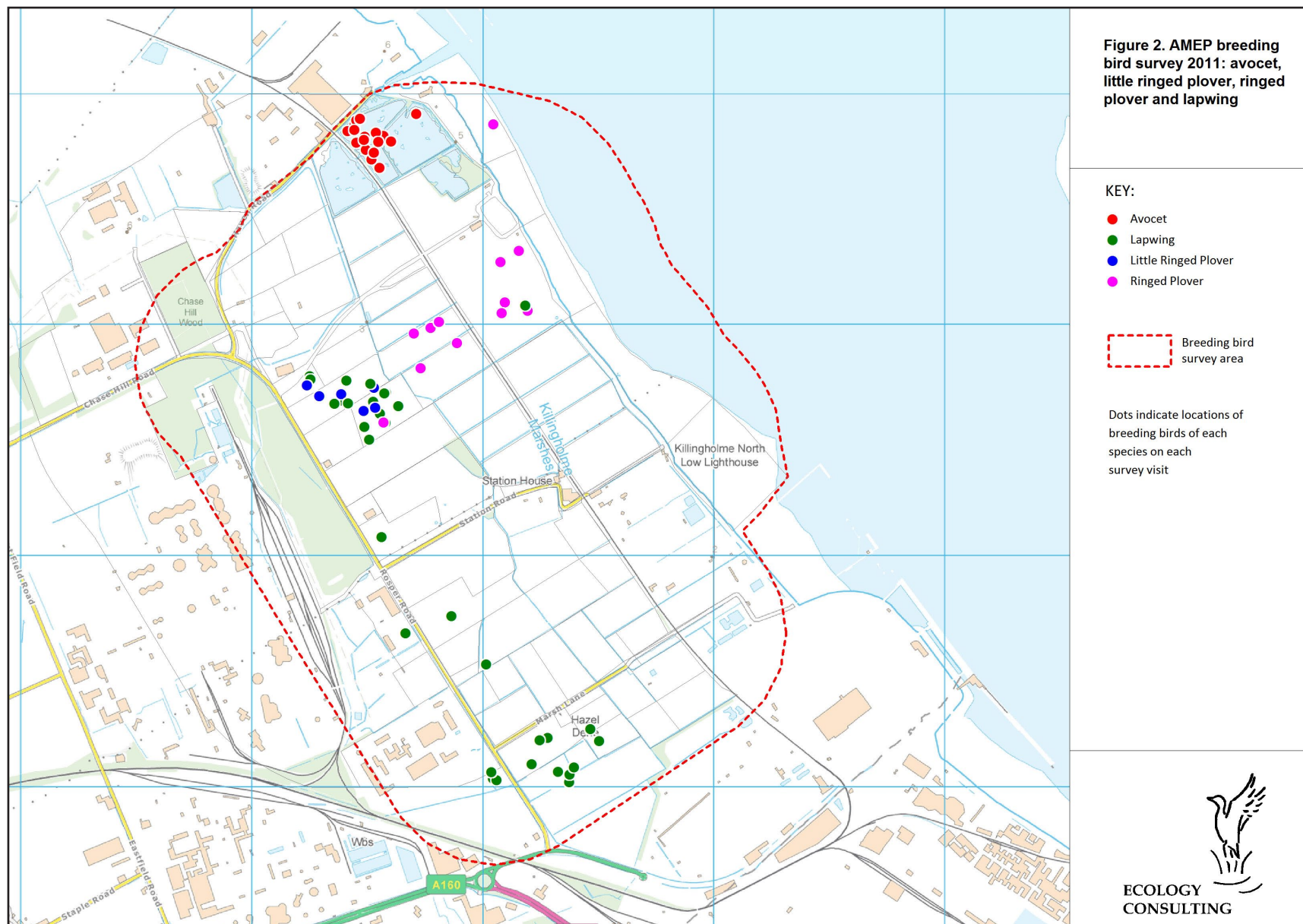
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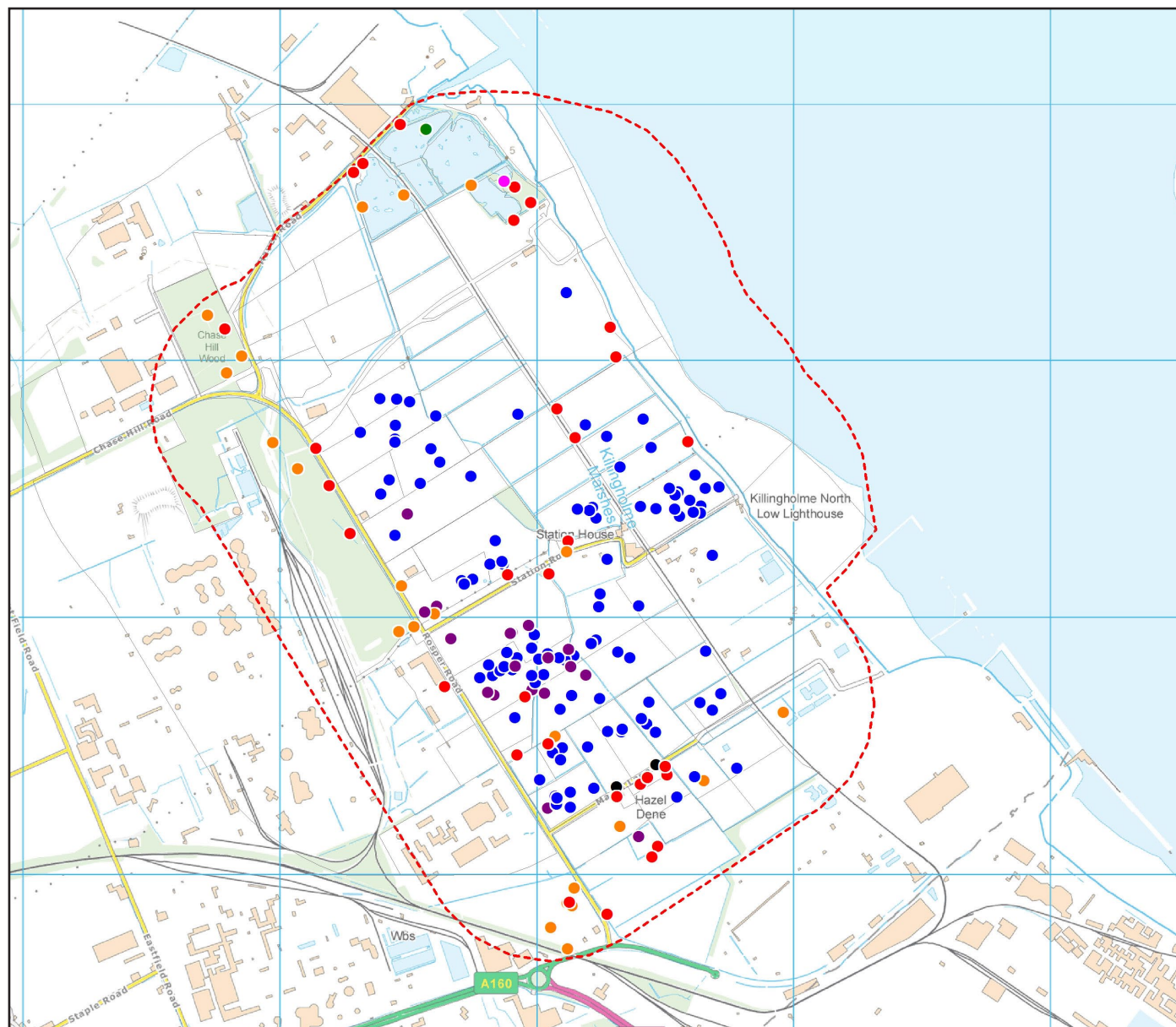


Figure 3. AMEP breeding bird survey 2011: dunnock, grasshopper warbler, skylark, spotted flycatcher, song thrush, willow tit and yellow wagtail

KEY:

- Dunnock
- Grasshopper Warbler
- Skylark
- Spotted Flycatcher
- Song Thrush
- Willow Tit
- Yellow Wagtail

Breeding bird survey area

Dots indicate locations of breeding birds of each species on each survey visit



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