

## **Appendix F.8 Summary of Previous Surveys undertaken by HDA**

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Reports of previous surveys on/near the site carried out in 2007/2008 by HDA were made available to MLM and were reviewed prior to planning further surveys of the site. These reports considered in this assessment are listed as follows:

- Interim summary report (ref. 1)
- Hedgerow survey undertaken on 11 July 2008 (ref. 2)
- Water vole survey undertaken between 16 and 18 July and 28 September 2007 (ref. 4)
- Otter survey undertaken on 29 and 30 January 2008 (ref. 5)
- Dormouse survey undertaken between May and November 2007 (ref. 6)
- Winter birds survey undertaken on 28 October and 7-20 March 2007 (ref. 7)
- Breeding bird survey undertaken between late March and mid-June 2007 (ref. 8)
- Amphibian survey undertaken between March and May 2007 (ref. 9)
- Reptile survey undertaken between April and June 2007 (ref. 10)
- White-clawed crayfish survey undertaken on 23 April 2007 (ref. 11)

A summary of these reports is included below and is shown on Drawing 772478-DWG-ENV-009.

### **1 Habitats**

An assessment of habitats was carried out by HDA in 2007 and reported in their interim summary report (ref. 1). The HDA report confirmed there are no areas of international, UK, national or regional nature conservation importance within the site. The report provided an assessment of the value of ecological features on site.

The lagoons present on site were noted of being of county importance, while the woodland scrub along the northern boundary and south flowing central drain were assessed as being district importance. Billing Scrub CWS, Wind Spinney, east flowing central drain, stream and adjacent woodland on site were assigned local importance. The areas of Ecton Gravel pits LWS on-site were considered of negligible importance due to the predominance ruderal vegetation and lack of indicator species for which the LWS is designated.

### **2 Hedgerows**

A hedgerow survey was conducted by Kerry Elliott of HDA (ref. 2). As part of this assessment eight hedgerows were noted and assessed across the site, labelled 1-8.

Based on the historical information available at the time of the HDA assessment, none of the hedgerows qualify under the historical criteria of the Regulations. Hedgerow 4 was considered important under the Hedgerow Regulations 1997 (ref. 28) as it meets the ecological criteria cited in the Regulations. The remaining hedgerows within the site did not qualify under either the ecological or historical criteria cited in the Regulations.

#### **4 Bats**

A bat survey has previously been carried out on the site by HDA in 2007 (ref. 1). As part of this a bat transect survey was conducted and identified seven species of bat including:

- Common pipistrelle (*Pipistrellus pipistrellus*)
- Soprano pipistrelle (*Pipistrellus pygmaeus*)
- Noctule (*Nyctalus noctula*)
- Serotine (*Eptesicus serotinus*)
- Natterer's (*Myotis nattereri*)
- Long-eared species (*Plecotus* sp.)
- Barbastelle (*Barbastella barbastellus*)

The survey conducted by HDA concluded that the site was of county importance due to the large number of bats recorded within the site.

In addition they also highlighted a number of features or areas considered to be important foraging, roosting or commuting habitat. The boundaries of the site to the north, east, south and west as well as the lagoons, Wind Spinney and the central drain that runs through the site (north to south) are considered to be important for bats.

These areas contained, either wooded corridors, wooded areas or hedge lines considered to have, foraging, roosting and commuting potential. The bridge located over the central drain was also highlighted as a potential roosting feature due to the presence of swarming bats.

#### **5 Water Voles**

A water vole (*Arvicola amphibius*) survey was conducted by Kerry Elliott and Louise Medland of HDA on 16-18 July and 28 September 2007 (ref. 4). No water voles were found during the survey.

#### **6 Otters**

The survey was conducted by David Parsons and Kelly Elliott of HDA on 29 and 30 January 2008 (ref. 5). Evidence of otter (*Lutra lutra*), including spraints and prints, was recorded within the main drain which runs through the site north to south, and the ditch which flows along the southern site boundary.

#### **7 Dormouse**

A survey for dormice (*Muscardinus avellanarius*) was undertaken between May and November 2007 by Daniel Maughan of HDA (ref. 6). No evidence of dormice was found during the survey.

## **8 Birds**

A previous wintering birds survey was conducted by Adrian Meurer, Daniel Maughan and David Parsons of HDA between October 2007 and March 2008 (ref. 7). A total of 52 bird species were recorded during the wintering bird with none of the species of conservation concern (a total of 27) considered to be present in significant numbers.

A previous breeding birds survey between late March to mid-June 2008 was conducted by Adrian Meurer of HDA (ref. 8). During the breeding bird survey a total of 78 bird species were recorded, of which 48 were considered to be breeding.

The report concluded that avian habitats of greatest interest are the woods, scrub and wetlands (notably the reed beds located along the central section of the southern site margin).

The breeding bird assemblage for the reedbeds meets 47.5% of the qualifying candidate SSSI score for lowland open waters and their margins, as it supports Mute Swan (*Cygnus olor*), Water Rail (*Rallus aquaticus*) (suspected), Cuckoo (*Cuculus canorus*), Kingfisher (*Alcedo atthis*), Sedge Warbler (*Acrocephalus schoenobaenus*), Reed Warbler (*Acrocephalus scirpaceus*) and Reed Bunting (*Emberiza schoeniculus*). It was for this reason that the report concluded that on the basis of its value to breeding birds this area of habitat is considered to be of district importance.

## **9 Amphibians**

An amphibian survey was conducted between March and May 2007 by Daniel Maughan of HDA (ref. 9). Low numbers of smooth newt (*Lissotriton vulgaris*), common frog (*Rana temporaria*) and common toad (*Bufo bufo*) were recorded during the amphibian survey. No great crested newts (*Triturus cristatus*) were recorded within the site or any of the ponds surveyed within 500m of the site boundary.

Water bodies south of the site were found to be generally unsuitable for this species due to presence of predatory fish, a lack of suitable egg-laying plants or dense marginal and surface aquatic vegetation limiting areas of open water available for display.

## **10 Reptiles**

A previous survey was conducted by Louisa Medland of HDA between April and June 2005 (ref 10). The majority of the site was concluded to provide low quality reptile habitat, consisting of large open arable fields. However, potential reptile habitat was found along field margins and around the edges of the site. In particular, the mosaic of wetland, grassland, ruderal and scrub habitats along the southern edge of the site provides good potential reptile habitat.

The results of the reptile survey proved a large population of grass snake (*Natrix natrix*) present on site with a maximum count of 26 individuals on the sixth visit (comprising 11 adults, 2 sub-adults and 13 juveniles). Records of which are shown in drawing 772478-DWG-ENV-009. Records of grass snake were scattered across the whole site, with concentrations of sightings surrounding the water bodies along the southern site margin and along the central drain.

## **11 White-clawed Crayfish**

A survey for white-clawed Crayfish (*Austropotamobius pallipes*) was conducted by David Rogers Associates Aquatic Biological Consultants on behalf of HDA on 23 April 2007 (ref. 11). No crayfish were found during the survey.

## **12 References**

- 1** HDA (November 2007). Great Billing WWTW Ecology: Interim Ecological Summary
- 2** HDA (November 2007). Great Billing WWTW: Hedgerow Survey.
- 4** HDA (October 2007). Great Billing WWTW Ecology: Water Vole Survey.
- 5** HDA (March 2008). Great Billing WWTW Ecology: Otter Survey.
- 6** HDA (November 2007). Great Billing WWTW Ecology: Dormouse Survey.
- 7** HDA (June 2008). Great Billing WWTW Ecology: Winter Bird Survey.
- 8** HDA (April 2008). Great Billing WWTW Ecology: Breeding Bird Survey and Ornithological Assessment.
- 9** HDA (November 2007). Great Billing WWTW Ecology: Amphibian Survey.
- 10** HDA (September 2007). Great Billing WWTW Ecology: Reptile Survey.
- 11** HDA (September 2007). Great Billing WWTW Ecology: White-clawed Crayfish Survey.