

**M42 Junction 6 Improvement  
Scheme Number TR010027  
Volume 6**

**6.3 Environmental Statement**  
**Appendix 9.7 Wintering Bird Survey Report**

Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

January 2019

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms  
and Procedure) Regulations 2009**

**M42 Junction 6 Improvement  
Development Consent Order 202[ ]**

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**6.3 Environmental Statement  
Appendix 9.7 Wintering Bird Survey Report**

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## Table of contents

Chapter	Pages
<b>1 Introduction</b>	<b>1</b>
1.1 Purpose of the document	1
1.2 Survey scope	1
<b>2 Methods</b>	<b>2</b>
2.1 Desk study	2
2.2 Wintering bird survey	3
2.3 Survey limitations	3
<b>3 Results</b>	<b>4</b>
3.2 Wintering bird survey	6
<b>4 Discussion and site evaluation</b>	<b>13</b>
<b>5 Summary</b>	<b>14</b>
<b>6 References</b>	<b>16</b>
<b>Annex A: Relevant Legislation, Planning Policy and Guidance on Conservation Status of Birds</b>	<b>17</b>
<b>Annex B: Survey and Weather Conditions</b>	<b>20</b>
<b>Annex C: BTO WeBS Dataset</b>	<b>21</b>
<b>Annex D: Figures</b>	<b>22</b>

### Tables

Table 1: Waterbodies within the Winter Bird Study Area	2
Table 2: Third party records received	4
Table 3: Target species number – waterbody 1 (Pendigo Lake)	6
Table 4: Target species number – waterbody 2	7
Table 5: Target species number – waterbody 3	7
Table 6: Target species number – waterbody 4	7
Table 7: Target species number – waterbody 5	8
Table 8: Target species number – waterbody 6	8
Table 9: Target species number – waterbody 7	9
Table 10: Target species number – waterbody 8	9
Table 11: Target species number – waterbody 9	9
Table 12: Target and secondary species number in terrestrial habitats	10

## Appendix 9.7 - Wintering Bird Survey Report

### 1 Introduction

#### 1.1 Purpose of the document

- 1.1.1 The purpose of this appendix is to provide further detail to that contained within Chapter 9 Biodiversity [TR010027/APP/6.1] concerning the results of the wintering bird surveys carried out in 2017 and 2018 to determine the current status and distribution of wintering birds in the Winter Bird Study Area (defined in Section 1.2).

#### 1.2 Survey scope

- 1.2.1 Ornithological baseline data regarding wintering birds was gathered by means of a desk study (see Section 3) to gather third party data, and surveys to gather contemporary and site-specific data. These were carried out in accordance with the requirements of planning policy and DMRB Volume 11: Environmental Assessment.
- 1.2.2 'Target Species' consisted of wetland birds; waterfowl, waders and gulls. Other notable non-wetland species (termed 'Secondary Species'), classed as Birds of Conservation Concern (BoCC) Amber and Red List species [REF 3 & REF 4], Natural Environment and Rural Communities (NERC) Act 2006 Section 41 (s41) species, Warwickshire, Coventry and Solihull Local Biodiversity Action Plan (LBAP) species [REF 5] and Birmingham and the Black Country LBAP species [REF 6], were also recorded. Common Green List, non-wetland species were not recorded, given many of these species were numerous in the Winter Bird Study Area.
- 1.2.3 The objectives of the wintering bird surveys undertaken in 2017 and 2018 were as follows:
- to identify the distribution and numbers of Target Species;
  - to identify the distribution and numbers of Secondary Species; and
  - to identify the presence and distribution of important habitats for Target and Secondary species.
- 1.2.4 Within this report the following terminology is used to describe the spatial extent of the study:
- The Order Limits - the area to be directly impacted by the Scheme;
  - Ecological Study Area – the area for which third party data were gathered, comprising a 5km radius from a central point in the Scheme (SP187823); and

- c. Winter Bird Study Area (approximately 780 ha) – the area within which baseline wintering bird surveys were undertaken. This is principally farmland (pasture and arable). Other habitats within the area include hedgerows, tree-lines, plantation woodland, road network, buildings (residential areas), ditches and waterbodies.

1.2.5 The Order Limits and Winter Bird Study Area are shown on **Figure 9.7 [TR010027/APP/6.3]**.

1.2.6 The details of the waterbodies within the Winter Bird Study Area are summarised in **Table 1**. The waterbodies are shown on **Figure 9.7 [TR010027/APP/6.3]**

**Table 1: Waterbodies within the Winter Bird Study Area**

Waterbody	National Grid reference (SP)	Details
1 (Pendigo Lake)	1983 3351	A large lake (6.4ha) with a wooded island, which is within the National Exhibition Centre (NEC) Birmingham complex. The lake has fishing platforms and a path runs around its southern and western banks.
2	2083 2370	A small waterbody (0.2ha) in an area of rough pasture, surrounded by trees. Hollywell Brook flows through the waterbody. There is an area of reedbed in the margins of the waterbody.
3	2082 4559	A small waterbody within an active quarry site. Possibly temporary only. Waterbody surrounded by earth and bare ground.
4	2082 5043	A small waterbody within an active quarry site. Possibly temporary only. Waterbody surrounded by earth and bare ground.
5	1880 5927	A small waterbody (0.2ha) behind the derelict Walford Hall Farm. The waterbody has pasture around much of its margins, and there is an area of scrub/ small trees along its eastern banks.
6	1880 7873	A small waterbody (<0.1ha) fenced off and surrounded by scrub and small trees.

## 2 Methods

### 2.1 Desk study

2.1.1 A desk study was conducted in September 2017 of protected species within the Ecological Study Area. With respect to wintering birds, the following consultees were contacted for data:

- Warwickshire Biological Records Centre;
- British Trust for Ornithology (BTO) Wetland Birds Survey (WeBs) data;
- The Barn Owl Trust; and
- West Midland Bird Club.

2.1.2 Data were obtained for the period 2002 – 2017.

## 2.2 Wintering bird survey

- 2.2.1 The surveys were carried out monthly between and including October 2017 and March 2018, by two ecologists (at least one of whom was an experienced ornithologist). Each of the visits was carried out over two days. The survey used a 'look – see' method [REF 7]. On each visit, the survey team followed a transect that enabled them to view all parts of the Winter Bird Study Area using high powered optical equipment (telescope and binoculars). Some areas were surveyed from private land, whilst other areas could be surveyed adequately from adjacent public right of ways (PRoWs).
- 2.2.2 All Target and Secondary Species seen or heard were recorded on a suitably scaled field recording map, using standard BTO codes and activity symbols [REF 8].
- 2.2.3 Surveys were carried out during the daytime, in suitable weather conditions (i.e. avoiding heavy rain, strong winds and/or poor visibility). Annex B sets out the survey and weather conditions during each visit.

## 2.3 Survey limitations

- 2.3.1 Each wintering bird survey provides a 'snapshot' of the ornithological baseline at that particular time. The absence of a species is not necessarily conclusive proof that the species is not present or that it will not be present in the future. However, repeat surveys coupled with the use of third party data provide a more comprehensive understanding of the use of the Winter Bird Study Area by birds over winter i.e. which bird species are present and where, and the location of any notable assemblages. The results of the surveys and desk study provide a data set that is sufficiently robust to enable evaluation of the bird species / assemblages that are at risk of being directly or indirectly impacted by the proposed works associated with the Scheme over the winter period.

## 3 Results

3.1.1 Warwickshire Biological Records Centre, the BTO and The Barn Owl Trust all returned records, although those from The Barn Owl Trust were limited to a radius of up to 1km from central point SP187823. The West Midland Bird Club did not provide any additional records. The desk study records received are summarised below.

**Table 2: Third party records received**

Species	Latin name	Data source	Within winter bird study area?	Conservation status (see footnotes)
Barn owl	<i>Tyto alba</i>	The Barn Owl Trust Warwickshire Biological Records Centre	Yes	W&CA; Green List
Black-headed gull	<i>Chroicocephalus ridibundus</i>	Warwickshire Biological Records Centre	No	Amber List
Bullfinch	<i>Pyrrhula pyrrhula</i>	Warwickshire Biological Records Centre	No	NERCS41; Amber List
Dunnock	<i>Prunella modularis</i>	Warwickshire Biological Records Centre	Yes	NERCS41; Amber List
Fieldfare	<i>Turdus pilaris</i>	Warwickshire Biological Records Centre	Yes	W&CA; Red List
Kestrel	<i>Falco tinnunculus</i>	Warwickshire Biological Records Centre	Yes	Amber List
Lesser black-backed gull	<i>Larus fuscus</i>	Warwickshire Biological Records Centre	No	Amber List
Linnet	<i>Carduelis cannabina</i>	Warwickshire Biological Records Centre	Yes	NERCS41; Red List
Mallard	<i>Anas platyrhynchos</i>	Warwickshire Biological Records Centre	No	Amber List
Meadow pipit	<i>Anthus pratensis</i>	Warwickshire Biological Records Centre	No	Amber List
Mistle thrush	<i>Turdus viscivorus</i>	Warwickshire Biological Records Centre	No	Red List
Red kite	<i>Milvus milvus</i>	Warwickshire Biological Records Centre	No	Birds Dir; W&CA; Green List
Redwing	<i>Turdus iliacus</i>	Warwickshire Biological Records Centre	Yes	W&CA; Red List

Species	Latin name	Data source	Within winter bird study area?	Conservation status (see footnotes)
Song thrush	<i>Turdus philomelos</i>	Warwickshire Biological Records Centre	No	NERCS41; LBAPWCS; Red List
Starling	<i>Sturnus vulgaris</i>	Warwickshire Biological Records Centre	Yes	NERCS41; Red List
Stock dove	<i>Columba oenas</i>	Warwickshire Biological Records Centre	Yes	Amber List

Abbreviation	Description
Birds Dir	Annex 1 of the EC Directive on the Conservation of Wild Birds 2009 (2009/147/EC)
W&CA	Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)
NERC S41	Section 41 of the Natural Environment and Rural Communities Act (2006)
LBAPWCS	Local Biodiversity Action Plan Priority Species for Warwickshire, Coventry and Solihull
Red List	Birds of Conservation Concern (2015) Red Listed Species
Amber List	Birds of Conservation Concern (2015) Amber Listed Species
Green List	Birds of Conservation Concern (2015) Green Listed Species

3.1.2 The nearest sites (referred to as count sectors) for which the BTO have supplied WeBs core count data are Elmdon Park (SP 162 825; approximately 1.3km west from the Winter Bird Study Area) and Marsh Lane Nature Reserve (SP 215 805; approximately 1.8km east of the Winter Bird Study Area). Core count data for Elmdon Park included common wetland species (such as greylag goose *Anser anser* and coot *Fulica atra*). The core count data for Marsh Lane Nature Reserve indicate a more species diverse assemblage including a variety of ducks (e.g. shoveler *Anas clypeata* and teal *Anas crecca*) and relatively small numbers of swans (whooper *Cygnus cygnus*, mute swan *Cygnus olor* and black swan *Cygnus atratus*). The full BTO WeBs dataset is provided in Annex C.

## 3.2 Wintering bird survey

3.2.1 **Tables 3 – 11** provide counts and some brief descriptive narrative on the Target Species counted on each of the waterbodies present within the Winter Bird Study Area. Counts and summary details of Target and Secondary Species in terrestrial habitats are provided in **Table 12**. The means stated in the tables do not include birds recorded only flying over the Winter Bird Study Area. Birds recorded flying over, are given in brackets.

**Table 3: Target species number – waterbody 1 (Pendigo Lake)**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Black-headed gull	<i>Chroicocephalus ridibundus</i>	1	4	4	0	0	0	4	2		Amber List
Canada goose	<i>Branta canadensis</i>	52	38	31	5	0	4	52	22	Large flock feeding on amenity grassland around waterbody, and likely fed by the public	None
Coot	<i>Fulica atra</i>	1	1	0	0	2	0	2	1		Green List
Cormorant	<i>Phalacrocorax carbo</i>	0	0	4	1	1	0	4	1	Includes some roosting in trees	Green List
Great crested grebe	<i>Podiceps cristatus</i>	1	2	0	1	1	2	2	1		Green List
Grey heron	<i>Ardea cinerea</i>	1	1	0	0	0	0	1	1		Green List
Lesser black-backed gull	<i>Larus fuscus</i>	0	0	0	0	0	2	2	1		Amber List
Mallard	<i>Anas platyrhynchos</i>	0	4	4	8	0	0	8	3		Amber List
Moorhen	<i>Gallinula chloropus</i>	3	3	3	1	1	1	3	2		Green List
Mute swan	<i>Cygnus olor</i>	0	0	0	0	4	0	4	1		Amber List

**Table 4: Target species number – waterbody 2**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Coot	<i>Fulica atra</i>	0	0	0	0	1	0	1	1		Green List
Grey heron	<i>Ardea cinerea</i>	1	0	0	0	0	0	1	1		Green List
Mallard	<i>Anas platyrhynchos</i>	12	8	5	6	3	1	12	9		Amber List
Teal	<i>Anas crecca</i>	0	3	0	2	2	1	3	1		Amber List
Water rail	<i>Rallus aquaticus</i>	1	0	0	0	0	0	1	1	Calling from reedbed	Green List

**Table 5: Target species number – waterbody 3**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Grey heron	<i>Ardea cinerea</i>	1	0	0	0	0	0	1	1		Green List
Little grebe	<i>Tachybaptus ruficollis</i>	2	0	0	0	0	0	2	1		Green List
Mallard	<i>Anas platyrhynchos</i>	5	0	0	0	0	0	5	1		Amber List

**Table 6: Target species number – waterbody 4**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Little egret	<i>Egretta garzetta</i>	0	1	0	0	0	0	1	1	Feeding along edge of waterbody	Birds Dir; Green List

**Table 7: Target species number – waterbody 5**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Grey heron	<i>Ardea cinerea</i>	1	0	0	3	0	0	3	1		Green List
Green sandpiper	<i>Tringa ochropus</i>	1	0	0	0	0	0	1	1	Flushed from edge of waterbody	W&CA; Amber List

**Table 8: Target species number – waterbody 6**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Coot	<i>Fulica atra</i>	0	0	0	0	1	0	1	1		Green List

**Table 9: Target species number – waterbody 7**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Gadwall	<i>Anas strepera</i>	0	0	0	0	0	2	2	1		Amber List
Mallard	<i>Anas platyrhynchos</i>	0	0	0	0	4	0	4	1		Amber List

**Table 10: Target species number – waterbody 8**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Grey heron	<i>Ardea cinerea</i>	0	0	0	0	1	0	1	1		Green List

**Table 11: Target species number – waterbody 9**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Gadwall	<i>Anas strepera</i>	0	0	0	0	0	6	6	1	Flocking with other duck species	Amber List
Mallard	<i>Anas platyrhynchos</i>	0	0	0	0	0	4	4	1	Flocking with other duck species	Amber List
Moorhen	<i>Gallinula chloropus</i>	2	0	0	0	0	0	2	1		Green List
Teal	<i>Anas crecca</i>	0	0	0	0	0	60	60	10	Flocking with other duck species	Amber List

**Table 12: Target and secondary species number in terrestrial habitats**

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
Black-headed gull	<i>Chroicocephalus ridibundus</i>	(6)	9	2 (8)	(50)	0	8 (3)	9	3	Mainly feeding in fields north-east of Waterbody 8	Amber List
Bullfinch	<i>Pyrrhula pyrrhula</i>	4	6	9	1	0	1	9	4	Mainly in hedgerows throughout the Winter Bird Study Area	NERCS41; Amber List
Cetti's warbler	<i>Cettia cetti</i>	0	0	0	0	1	0	1	1	Close to Waterbody 2	W&CA; Green List
Common snipe	<i>Gallinago gallinago</i>	1	0	0	0	0	0	1	1	Flushed near Waterbody 5	LBAPWCS; Amber List
Cormorant	<i>Phalacrocorax carbo</i>	0	0	(1)	0	0	0	(1)	0		Green List
Dunnock	<i>Prunella modularis</i>	0	5	4	2	0	5	5	3	Mainly in hedgerows throughout the Winter Bird Study Area	NERCS41; Amber List
Fieldfare	<i>Turdus pilaris</i>	0	12	82 (3)	117	37	7	117	43	Predominantly found in mixed flocks, with other thrush species and starling, in fields of pasture	W&CA; Red List
Grey heron	<i>Ardea cinerea</i>	0	(1)	1	2	0	0	2	1		Green List
Greylag goose	<i>Anser anser</i>	(4)	0	0	0	0	0	(4)	0		Amber List
Herring gull	<i>Larus argentatus</i>	0	0	(1)	(1)	0	0	(1)	0		LBAPBB; Red List
House sparrow	<i>Passer domesticus</i>	0	0	0	3	0	2	3	1	Associated with recreational areas in north of the Winter Bird Study Area	NERCS41; LBAPBB; Red List
Kestrel	<i>Falco tinnunculus</i>	(2)	0	(1)	0	0	2 (1)	2	1		Amber List
Lapwing	<i>Vanellus vanellus</i>	1	0	0	0	0	1	1	1	Present in a field of root crop and a flooded field of newly	NERCS41; LBAPBB,WCS;

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
										sown grass	Red List
Linnet	<i>Carduelis cannabina</i>	0	0	0	(9)	0	0	(9)	0		NERCS41; LBAPWCS; Red List
Mallard	<i>Anas platyrhynchos</i>	0	0	(1)	(2)	0	1	1	1		Amber List
Meadow pipit	<i>Anthus pratensis</i>	2	6	6 (1)	11	6	19	19	8	Moving typically in large flocks	Amber List
Mistle thrush	<i>Turdus viscivorus</i>	1	0	1	7	2	2 (2)	7	2	Mainly feeding in fields with other thrush species throughout the Winter Bird Study Area	Red List
Redwing	<i>Turdus iliacus</i>	0	12 (1)	66 (4)	132	46	25	132	47	Predominantly found in mixed flocks, with other thrush species and starling, in fields of pasture	W&CA; Red List
Reed bunting	<i>Emberiza schoeniclus</i>	0	0	0	0	0	0	2	1	In hedgerow just north of Waterbody 5	NERCS41; LBAPWCS; Amber List
Skylark	<i>Alauda arvensis</i>	2	1 (1)	7	2	0	1	7	2	Mainly found in open fields throughout the Winter Bird Study Area	NERCS41; LBAPBB,WCS; Red List
Song thrush	<i>Turdus philomelos</i>	0	1	1	2	3	4	4	2		NERCS41; LBAPWCS; Red List
Starling	<i>Sturnus vulgaris</i>	0	0	92 (9)	15	0	5 (13)	92	19	Predominantly found in mixed flocks, with thrush species, in fields of pasture	NERCS41; Red List
Woodcock	<i>Scolopax rusticola</i>	0	0	0	1	0	0	1	1	Flushed from the edge of a field of root crop	Red List
Yellowhammer	<i>Emberiza citrinella</i>	0	0	1	0	0	5	5	1	Found mainly in fields of pasture in south the Winter Bird Study	NERCS41; LBAPBB,WCS;

Species	Latin name	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Peak	Mean	Comments (e.g. roosts, behaviour)	Conservation status (see footnotes)
										Area	Red List

#### Abbreviation

Birds Dir

W&CA

NERC S41

LBAPWCS

LBAPBB

Red List

Amber List

Green List

None

#### Description

Annex 1 of the EC Directive on the Conservation of Wild Birds 2009 (2009/147/EC)

Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)

Section 41 of the Natural Environment and Rural Communities Act (2006)

Local Biodiversity Action Plan Priority Species for Warwickshire, Coventry and Solihull

Local Biodiversity Action Plan Priority Species for Birmingham and the Black Country

Birds of Conservation Concern (2015) Red Listed Species

Birds of Conservation Concern (2015) Amber Listed Species

Birds of Conservation Concern (2015) Green Listed Species

No Conservation Status – Introduced/Non-native species.

- 3.2.2 Target Species were predominantly associated with the waterbodies within the Winter Bird Study Area, although the species diversity and abundance was consistently modest at all waterbodies. The waterbody which supported the highest Target Species richness was Pendigo Lake (Waterbody 1) in the north of the Winter Bird Study Area. Ten species were recorded at this waterbody, including four Amber List species. Mallard (*Anas platyrhynchos*) was the most numerous with a peak of eight individuals recorded, during Visit 4.
- 3.2.3 The most notable records at the other waterbodies were:
- a peak of 60 teal (*Anas crecca*) (Amber List) at Waterbody 9;
  - a single green sandpiper (*Tringa ochropus*) (Amber List and W&CA Schedule 1) at Waterbody 5; and
  - a single little egret (*Egretta garzetta*) (W&CA Schedule 1 and EC Birds Directive Annex 1) using Waterbody 4.
- 3.2.4 Twelve Red List, nine Amber List and five Green List species were recorded using terrestrial habitats within the Winter Bird Study Area. Of these, three are W&CA Schedule 1 species (Cetti's warbler *Cettia cetti*, fieldfare *Turdus pilaris* and redwing *Turdus iliacus*), although fieldfare and redwing are winter migrant thrushes that do not breed in England. Moderate numbers of these species were recorded with a peak of 117 and 132 fieldfare and redwing respectively. A single Cetti's warbler was recorded during Visit 5.
- 3.2.5 Nine NERC s41 species were recorded using terrestrial habitats within the Winter Bird Study Area and seven LBAP species. Also recorded were linnet (*Carduelis cannabina*) (NERC s41 and LBAP) and herring gull (*Larus argentatus*) (LBAP), that were recorded only flying over the Winter Bird Study Area. The NERC s41 species with the highest recorded number using the terrestrial habitat was starling (*Sturnus vulgaris*) (92) and the highest number of a LBAP species was skylark (*Alauda arvensis*) (7).
- 3.2.6 Many of the Secondary Species were using field boundary habitats, particularly hedgerows and tree-lines and scrub. Very few of these species were recorded using the interior of the fields. Very small numbers of Target Species were recorded using terrestrial habitats within open fields. Such records include a peak of nine black-headed gull (*Chroicocephalus ridibundus*), and a single lapwing (*Vanellus vanellus*), common snipe (*Gallinago gallinago*) and mallard.

## 4 Discussion and site evaluation

- 4.1.1 To evaluate the Winter Bird Study Area and its wintering bird assemblage, consideration is given to the value of the habitats for the population of individual species that they support. This is done by comparing the number of each species present within the Winter Bird Study Area with the national and county wintering population for a given species. National population estimates are used [REF 9]. No wintering population within the Winter Bird Study Area approaches the 1% level of the national population, i.e. there are no nationally significant wintering populations.

- 4.1.2 Warwickshire Wildlife Trust has provided guidance for the selection of local wildlife sites in Warwickshire, Coventry and Solihull [REF 8]. Although no specifics are provided into what is required for classification, this document does include examples of the sort of considerations which may qualify a site as being important at a county scale for its ornithological interest. In relation to wintering birds, these are sites which have 'Significant feeding, resting and roosting sites for passage birds'. There is no evidence that any of the habitats within the Winter Bird Study Area provide significant feeding, resting or roosting sites for passage birds.
- 4.1.3 Furthermore, if a wintering bird population approaches the 0.5% level of the national population, this is likely a good indication that this is a locally (County level) significant wintering population. None of the species recorded during the course of the survey period within the Winter Bird Study Area were recorded in numbers that would constitute a locally significant wintering population.
- 4.1.4 The Winter Bird Study Area supported only modest numbers of Target and Secondary Species, and therefore it is likely to be of ornithological significance at the local level only with respect to wintering birds.

## 5 Summary

- 5.1.1 Measures will be required to ensure that wintering birds using the Winter Bird Study Area (and adjacent habitats) would not be adversely affected by the Scheme. These will include (in order of preference) avoidance of impacts through design and management of the construction phase, mitigation of impacts and / or compensation for impacts that are unavoidable, such as by providing additional habitats to offset unavoidable habitat losses.
- 5.1.2 To minimise impacts upon birds the optimal time to carry out vegetation removal is outside of the breeding bird period (thus avoiding March-August, inclusive). However, if clearance works are necessary during this period, nesting bird checks should first be carried out by a suitably experienced ornithologist immediately prior to the commencement of works. If active nests are found, the nest will have to be protected from the works, and monitored by the ornithologist until they determine that the nest is no longer active.
- 5.1.3 The Scheme would not directly impact waterbodies within the Winter Bird Study Area, and an appropriate buffer zone should be maintained between all works and all waterbodies, to minimise disturbance to Target Species using the waterbodies, and prevent runoff (e.g. silt).
- 5.1.4 Regardless of the time of year that the works are carried out, disturbance levels, including noise and visual intrusion, should be controlled to ensure that birds using the Winter Bird Study Area (and adjacent habitats) are not adversely impacted. This may include the use of screening to shield birds and other wildlife from the works. Works should also avoid very adverse weather conditions when birds may be more sensitive to disturbance. Standard best practice measures to control dust emission and pollution of groundwaters, surface waters and soils should also be implemented during the works period.

- 5.1.5 Where possible works should be restricted to daylight hours and artificial lighting, if required, should be environmentally sensitive (in terms of its position and emission), as nocturnal and crepuscular birds are likely to be active in habitats that will be directly impacted by the Scheme. This should include consideration of the direction, intensity, placement and type of light, to minimise any potential adverse impact on owls and other nocturnal animals.
- 5.1.6 Trees and vegetation within the Winter Bird Study Area should be retained (as far as practicable) and protected (including their roots), and only absolutely essential clearance should be undertaken. Planting of vegetation of local provenance is recommended to compensate for any loss of habitat. These could be species which provide food resources (e.g. fruit and seeds) for wintering birds.
- 5.1.7 Birmingham Airport has requested that a Bird Strike Management Plan be produced to confirm that the Scheme will not attract birds (particularly large birds, or large flocking species) into the vicinity of the airport, which may increase the collision risk with aircraft. This management plan will be prepared as part of the Construction Environmental Management Plan for the Scheme.

## 6 References

REF 1	WSP (formerly Mouchel) (2017) M42 Junction 6 Improvements Extended Phase 1 Habitat Survey Report. WSP, Leeds.
REF 2	Gilbert, G., Gibbons, D.W. and Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for key UK species. RSPB, Sandy.
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REF 4	Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R. (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708-746.
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REF 7	Bibby, C.J., Burgess, N.D. and Hill, D.A. (1992) Bird Census Techniques. Academic Press, London.
REF 8	Warwickshire Wildlife Trust (2013) The Green Book: Guidance for the Selection of Local Wildlife Sites in Warwickshire, Coventry and Solihull. Local Wildlife Sites Project. Guidance Notes on the Application of Site Selection Criteria. Warwick: Habitat Biodiversity Audit. <a href="https://apps.warwickshire.gov.uk/api/documents/WCCC-863-559">https://apps.warwickshire.gov.uk/api/documents/WCCC-863-559</a> Accessed April 2018.
REF 9	Musgrove, A., Aebischer, N., Eaton, M., Hearn, R., Newson, S., Noble, D., Parsons, M., Risely, K. and Stroud, D. (2013) Populations estimates of birds in Great Britain and the United Kingdom. British Birds 106: 64-100.

## Annex A: Relevant Legislation, Planning Policy and Guidance on Conservation Status of Birds

### Statutory Legislation

Key legislation for birds in the UK includes:

- a) Wildlife and Countryside Act 1981 (as amended) [W&CA]; and
- b) Directive 2009/147/EC on the conservation of wild birds (the EC Birds Directive).

Part 1 of the W&CA sets out how the provisions of the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention'), the EC Birds Directive and the EC Habitats Directive are implemented in Great Britain. Under Part 1, Section 1 of the W&CA it is an offence to:

- a) Kill, injure or take any wild bird intentionally;
- b) Take, damage or destroy the nest of any wild bird while that nest is in use or being built; and
- c) Take or destroy the egg(s) of any wild bird.

Schedule 1 of the W&CA lists a number of species which, in addition to the provisions listed above, are protected by special penalties at all times, including against disturbance when breeding.

The W&CA requires the prosecuting authority to prove that an offence was intentional, however the Countryside and Rights of Way (CROW) Act 2000 strengthens the provisions of the W&CA by introducing an additional offence of “reckless” disturbance, which means that ignorance of the presence of a protected species cannot be used as a reliable defence should a breach of the W&CA be committed. The Natural Environment and Rural Communities (NERC) Act 2006 strengthens the W&CA further with respect to the protection of the nests of certain birds listed on Schedule ZA1, even when they are not in use. The NERC Act also offers additional protection to birds released into the wild as part of a repopulation programme and provides minor amendments to the W&CA with respect to captive birds.

Annex 1 of the EC Birds Directive lists rare and vulnerable species of regularly occurring or migratory wild birds that are subject to special conservation measures. The Directive also provides for the designation of Specially Protected Areas (SPAs) for the protection of these species, which form part of the Natura 2000 network of sites protected by European wildlife legislation.

The Natural Environment and Rural Communities Act 2006, places a duty on all public authorities “to have regard”, so far as is consistent with the proper exercise of their functions, to the purpose of conserving biological diversity in accordance with the UN Convention on Biological Diversity. Under the terms of the Act, conserving biodiversity includes restoring or enhancing populations and/or habitats. Section 41 of the Act requires that a list is compiled of the species and habitats which are of principal importance for the purpose of conserving biodiversity, and that steps are taken for their conservation. The local planning authority (LPA) or other determining authority must therefore consider the

effects of planning applications upon biodiversity and how it can be mitigated for or enhanced.

## Planning Policy

There are a number of national, regional and local policies relating to biodiversity mitigation and enhancement that are relevant to the Site and the Scheme.

### *National Planning Policy Framework*

Planning policy guidance for England is provided by the National Planning Policy Framework (NPPF, 2018). This sets out how planning policy is to be applied.

Section 170 is concerned with conserving and enhancing the natural environment and states that the planning system should achieve this by “minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”.

When determining planning applications, Section 175 states that local planning authorities should apply the following principle: to conserve and enhance biodiversity and to refuse planning permission “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, the planning permission should be refused”.

Section 175 also states that “development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists”.

Planning and mitigation should recognise the wider benefits of ecosystem services and establishment of ecological networks to build in an element of resilience for our native species and habitats. Opportunities to enhance biodiversity are also encouraged.

In addition, Government Circular ODPM 06/2005: “Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System” sets out further detail on how species and habitats should be considered during planning applications.

Through national planning policy and Section 40 of the NERC Act 2006 (NERC), local planning authorities also have a duty to consider species listed as being of principal importance for nature conservation in England on Section 41 (s41) of the Act when considering a planning application (termed ‘NERC s41’ species in this report).

### *Royal Society for the Protection of Birds (RSPB) Birds of Conservation Concern*

The RSPB (2015) and Eaton *et al.* (2015) have published lists of Birds of Conservation Concern (BoCC). Red Listed species are those whose breeding population or range is rapidly declining (50 % or more in the last 25 years), recently or historically, and those of global conservation concern. Amber Listed species are those whose breeding population is in moderate decline (25 – 49 % in the last 25 years), rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

These lists confer no legal status however they are useful when assessing the significance of predicted impacts and determining the level of mitigation that may be required when birds are affected by development or any other activity. Furthermore, inclusion on the Red List is a factor in determining the species for which Biodiversity Action Plans (BAPs) are developed.

### *UK Biodiversity Framework*

The United Nations Convention on Biological Diversity was published in 1992, following which BAPs were produced in the UK at a national and a local level, setting out priority species and habitats and the measures required to halt and reverse their loss. Biodiversity strategy is delivered at a local level via a Local Biodiversity Action Plan (LBAP). The Warwickshire, Coventry and Solihull LBAP and Birmingham and the Black Country LBAP are considered relevant within this region, and they have respectively 14 and 24 bird species. These included waders such as lapwing (*Vanellus vanellus*) and farmland birds, like linnet (*Carduelis cannabina*).

The UK Post 2010 Biodiversity Framework follows on from the UK Biodiversity Action Plan. It outlines biodiversity actions to be taken across the UK between now and 2020 in order to achieve strategic goals and the 'Aichi' targets set in Nagoya 2010 to halt global declines of biodiversity.

## Annex B: Survey and Weather Conditions

Survey Dates	Details	Sunrise and sunset times (24hrs)
10th October & 11th October 2017	10:20-16:15 hrs; Partially sunny (70% cloud cover); 15°C; Wind- South-east, Beaufort 4. 10:00-17:30 hrs; Cloudy (90% cloud cover); 14°C; Wind- West, Beaufort 4-5; Drizzle starts at 16:20hrs until end of survey.	07:25 & 18:23 07:27 & 18:20
27th November & 28th November 2017	10:00-15:45 hrs; Cloudy (100% cloud cover); 9°C; Calm; Irregular light rain showers throughout survey. 08:30-12:30 hrs; Partially sunny (75% cloud cover); 4°C; Calm.	07:50 & 16:00 07:51 & 15:59
18th December & 19th December 2017	09:30-15:30 hrs; Cloudy (100% cloud cover); 5°C; Calm; Misty. 08:30-12:00 hrs; Partially sunny (75% cloud cover); 2°C; Calm; Frozen ground, which had thawed by 10:30hrs.	08:14 & 15:54 08:14 & 15:54
24th January & 25th January 2018	10:30-16:30 hrs; Cloudy (100% cloud cover); 9°C; Wind- South, Beaufort 4; Irregular light rain showers throughout survey. 09:10-12:15 hrs; Partially sunny (60% cloud cover); 7°C; Wind-South, Beaufort 2.	07:59 & 16:39 07:58 & 16:41
19th February & 20th February 2018	10:30-16:30 hrs; Cloudy (80% cloud cover); 9°C; Wind- South, Beaufort 2. 09:30-13:30 hrs; Partially sunny (40% cloud cover); 11°C; Wind- South-west, Beaufort 2.	07:14 & 17:28 07:11 & 17:30
20th March & 21st March 2018	10:00-15:45 hrs; Cloudy (90% cloud cover); 7°C; Wind- West, Beaufort 3. 09:15-13:00 hrs; Sunny (10% cloud cover); 6°C; Wind- North-west, Beaufort 2.	06:08 & 18:21 06:06 & 18:22

## Annex C: BTO WeBS Dataset

## WeBs data for Wetland sites near M42 J6.

**Source** - Fröst, T.M., Austin, G.E., Calbrade, Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. and Balmer, D.E.  
2017. Waterbirds in the UK 2015/16: The Wetland Bird Survey. BTO/RSPB/JNCC. Thetford.

**Site: Elmdon Park**

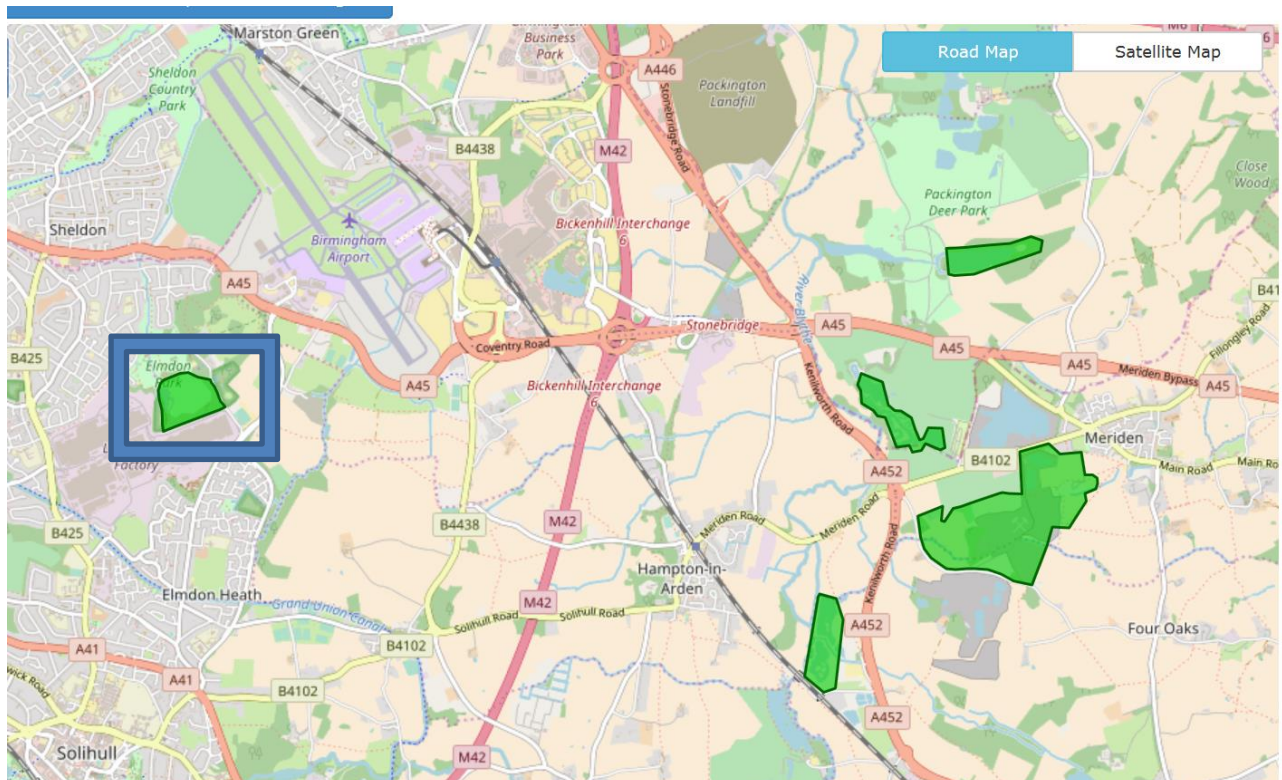
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☒ Include supplementary counts where available

Group: all ▼ ☒ Sort taxonomically

Annual Peaks								
Species	11/12	12/13	13/14	14/15	15/16	Mon	5yr avg	Cur avg
Greylag Goose		14					14	14
Greylag Goose (Icelandic)		0					0	0
Greylag Goose (British/Irish)		14					14	14
Canada Goose		8					8	8
Mallard		61					61	61
Mallard (domestic)		4					4	4
Moorhen		3					3	3
Coot		10					10	10
Black-headed Gull		1					1	1
Lesser Black-backed Gull		1					1	1

Previous page Next page



## Marsh Lane Nature Reserve

### Annual Peaks

Species	11/12	12/13	13/14	14/15	15/16	Mon	5yr avg	Cur avg
Mute Swan	14	9	17	19	22	Dec	16	16
Black Swan	1	1	1	1	1	Jul	1	1
Whooper Swan	0	0	2	0	0		0	0
hybrid swan	2	0	0	0	2	Nov	1	1
White-fronted Goose	0	0	0	0			0	0
White-fronted Goose (European)	0	0	0	0	0		0	0
Greylag Goose	458	276	540	483	474	Sep	446	446
Greylag Goose (Icelandic)	0	0	0	0			0	0
Greylag Goose (British/Irish)	458	276	540	483	474	Sep	446	446
Greylag Goose (domestic)	7	8	6	5	3	Sep	6	6
Bar-headed Goose	0	0	1	0	1	Oct	0	0
Canada Goose	120	120	295	298	307	Sep	228	228
hybrid Canada x domestic Greylag Goose	1	1	0	1	1	Aug	1	1
Egyptian Goose	2	0	0	0	0		0	0
Shelduck	2	3	2	4	6	Jul	3	3
Mandarin Duck	0	1	0	0	0		0	0
Wigeon	360	270	251	412	280	Mar	315	315
Gadwall	76	58	85	36	148	Sep	81	81
Teal	170	146	200	242	330	Dec	218	218
Mallard	261	87	118	98	65	Oct	126	126
Pintail	0	2	1	1	0		1	1
Garganey	0	1	0	0	0		0	0
Shoveler	54	89	87	113	45	Oct	78	78
hybrid duck	0	0	0	0	1	Oct	0	0
Pochard	24	37	15	21	56	Jan	31	31
Tufted Duck	46	56	73	90	110	Jun	75	75
Goldeneye	0	0	1	0	0		0	0
Goosander	2	2	0	3	7	Apr	3	3
Ruddy Duck	1	1	0	0	0		0	0
Little Grebe	8	21	7	13	10	Jul	12	12

[Previous page](#)
[Next page](#)

### Annual Peaks

Species	11/12	12/13	13/14	14/15	15/16	Mon	5yr avg	Cur avg
Great Crested Grebe	4	7	6	3	5	May	5	5
Cormorant	19	30	56	36	42	Nov	37	37
Bittern	0	1	0	0	0		0	0
Little Egret	0	1	1	1	4	Apr	1	1
Grey Heron	12	7	10	13	9	Sep	10	10
Water Rail	1	1	0	2	1	Jul	1	1
Moorhen	15	14	11	15	20	Jan	15	15
Coot	94	112	100	56	138	Sep	100	100
Oystercatcher	8	9	11	11	9	May	10	10
Little Ringed Plover	7	4	2	4	5	May	4	4
Ringed Plover	3	2	2	2	4	Jun	3	3
Golden Plover	55	0	0	0	0		11	11
Lapwing	283	397	680	249	914	Feb	505	505
Sanderling	1	0	0	0	0		0	0
Dunlin	3	3	0	0	0		1	1
Ruff	0	0	0	0	0		0	0
Jack Snipe	0	1	1	1	3	Mar	1	1
Snipe	20	40	23	40	67	Jan	38	38
Black-tailed Godwit	0	0	0	1	1	Jul	0	0
Curlew	0	0	1	0	1	Apr	0	0
Common Sandpiper	2	1	1	6	1	Apr	2	2
Green Sandpiper	1	1	3	4	1	Aug	2	2
Redshank	7	8	9	6	6	Apr	7	7
Turnstone	0	1	0	0	0		0	0
Black-headed Gull	370	380	344	587	875	May	511	511
Mediterranean Gull	0	0	2	1	4	May	1	1
Common Gull	30	9	3	6	3	Nov	10	10
Lesser Black-backed Gull	15	11	7	31	10	Jun	15	15
Herring Gull	2	9	1	2	3	Jan	3	3
Yellow-legged Gull	0	1	0	0	0		0	0

[Previous page](#)
[Next page](#)

## Site: Marsh Lane Nature Reserve

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☒ Include supplementary counts where available

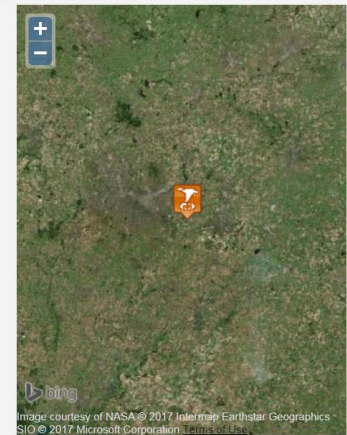
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### Annual Peaks

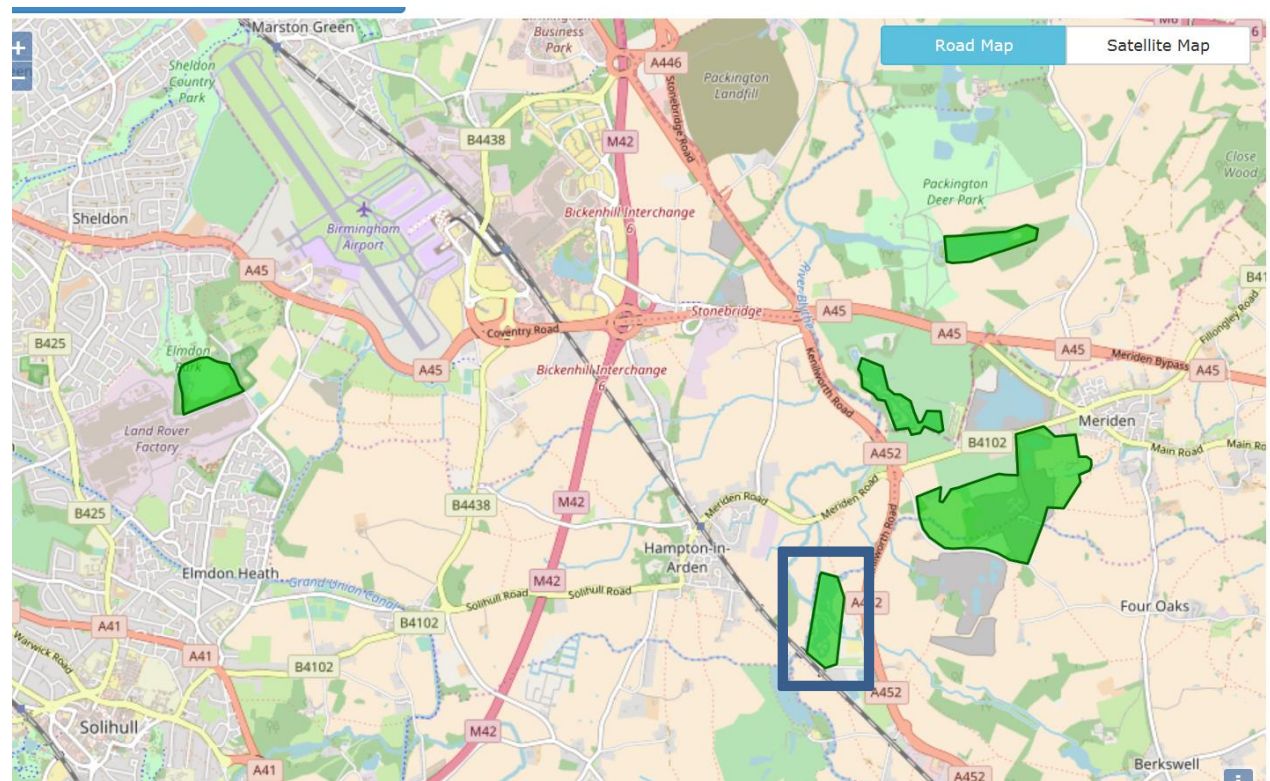
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Iceland Gull	1	0	0	0	0		0	0
Great Black-backed Gull	0	0	1	0	0		0	0
Common Tern	41	21	26	37	27	May	30	30
Arctic Tern	0	0	0	0	0		0	0
Kingfisher	1	1	0	1	0		1	1

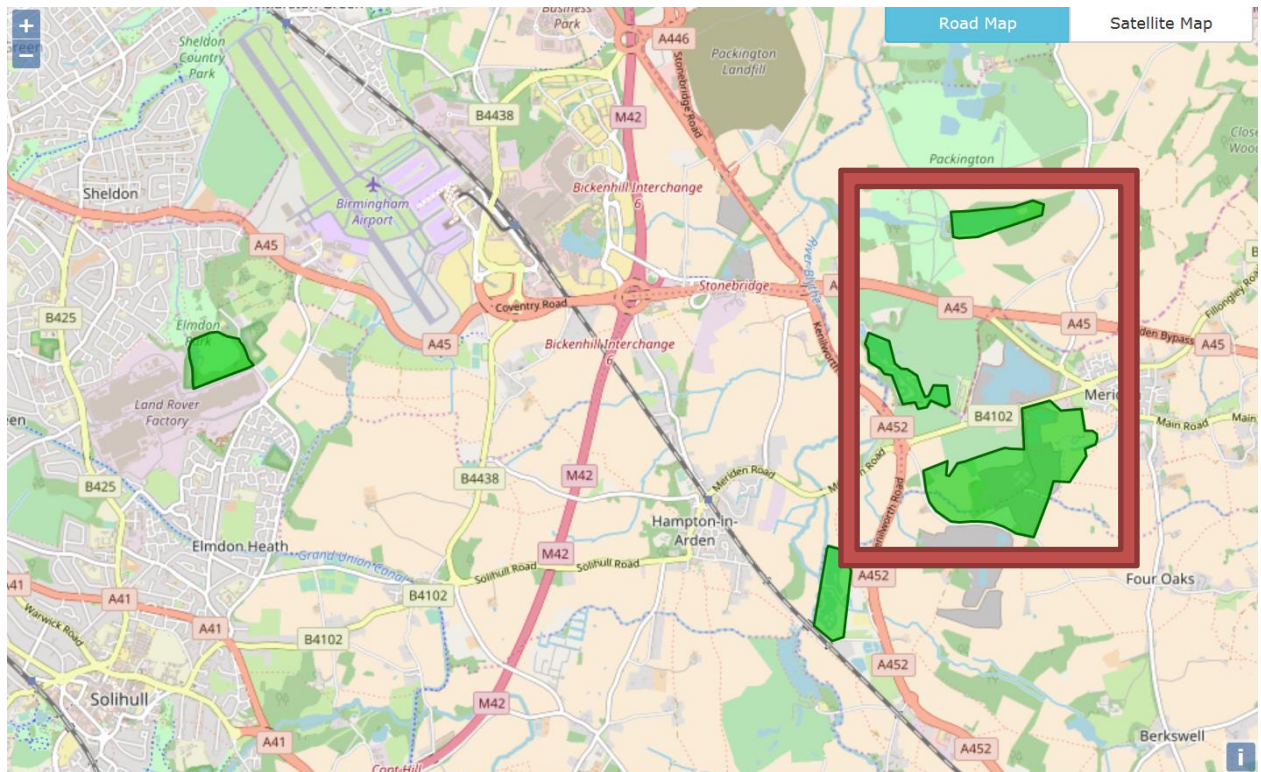
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This report should be cited as: Frost, T.M., Austin, G.E., Calbrade, Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. and Balmer, D.E. 2017. Waterbirds in the UK 2015/16: The Wetland Bird Survey. BTO/RSPB/JNCC. Thetford. <http://www.bto.org/volunteer-surveys/webs/publications/webs-annual-report>





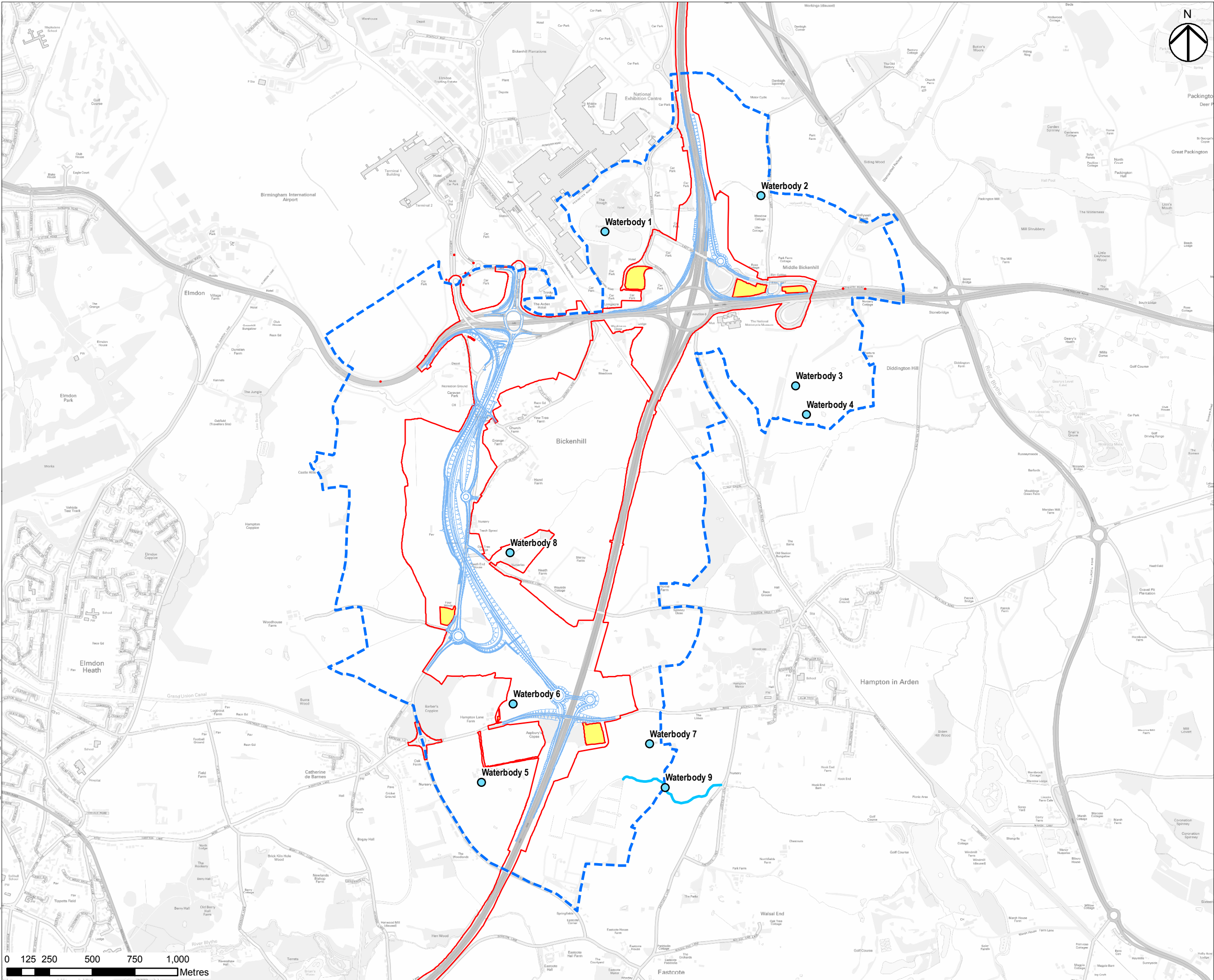
NO DATA for these three sites

Websites used: <https://app.bto.org/webs-reporting/?tab=alerts>

<https://app.bto.org/websonline/sites/data/sites-data.jsp#lon=-1.7097473&lat=52.4376295&zoom=13>

## Annex D: Figures

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NOTES

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.

LEGEND

- THE SCHEME
- LIMITS OF LAND TO BE ACQUIRED OR USED PERMANENTLY OR TEMPORARILY (THE ORDER LIMITS)
- LIMITS OF LAND TO BE TEMPORARILY ACQUIRED FOR SIGNAGE INSTALLATION
- LAND NOT INCLUDED WITHIN THE ORDER LIMITS
- WINTER BIRD STUDY AREA
- WATERBODY

FIRST ISSUE		GB JG		10/12/18		P01			
Revision on Details		By Check		Date		Suffix			
Purpose of Issue									
DCO SUBMISSION									
Client Highways England Floor 5 Two Colmore Square 38 Colmore Circus B4 6BN									
Development Consent Order Number									
TR010027									
Project Title									
M42 JUNCTION 6 IMPROVEMENT									
Drawing Title									
FIGURE 9.7 WINTERING BIRD STUDY AREA									
Designed MMH		Drawn GB		Checked MMH		Approved JG		Date 10/12/18	
Internal Project No 60543032				Suitability D7					
Scale @ A3 1:20,000				Zone M42					
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Drawing Number									
HE551485 -ACM -EGN-									
M42_SW_ZZ_ZZ -DR-DC-0160									
Location									
Highways England Pin   Originator   Volume						Rev			
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Type   Role   Number									