The Lake Lothing (Lowestoft) Third Crossing Order 201[*]

Lake Lothing THIRD CROSSING

Document 6.3: Environmental Statement Volume 3 Appendices

Appendix 11D

Wintering Bird Survey

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Lake Lothing Third Crossing: Appendix 11D Wintering Bird Survey

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1 Introduction

1.1 Background

Mouchel was commissioned by Suffolk County Council (the "Applicant") to undertake a wintering bird survey to support the planning application for a proposed third crossing of Lake Lothing in Lowestoft, Suffolk ("the Scheme"). This report presents the findings of the surveys.

1.2 Site location

A wintering bird survey was carried out along the south shore of Lake Lothing. The survey covered an area known as Jeld Wen, to the west of the Scheme, as well as urban land within the footprint of the Scheme and to the east. Lake Lothing is classed as a salt water lake and lies east of the Broads National Park, opening into the North Sea at its eastern end ('the site').

The boundary of the Broadland Special Protection Area (SPA) is located 1.8km west of the site and is also designated as a Ramsar site (Broadland Ramsar site) and Site of Special Scientific Interest (Sprat's Water and Marshes, Carlton Colville SSSI).

1.3 Survey rationale and objectives

The survey sought to:

- identify the wintering bird species within the survey area and the habitats they use;
- highlight notable species including those which receive specific legal protection and those which may be adversely affected by development; and
- assess the value of the site of the Scheme for wintering birds.

The results of the survey will be used to assess likely impacts of the Scheme upon wintering birds.

2 Methods

2.1 Desk Study

Historical records of birds found within the survey area (shown in Figure 11.5 of the Environmental Statement) and land up to 2km distant were obtained from the NBN Gateway and Suffolk Biodiversity Information Service (SBIS). Only data for the last ten years were collated, as older records are likely to no longer be relevant to current conditions at the survey area and the habitats present.

2.2 Field Survey

The survey method followed was derived from that of the Winter Farmland Bird Survey as described by the British Trust for Ornithology (BTO) on its website. This methodology, based on look-see methods described by Bibby *et al*. (2000), was adapted to include vantage point surveys to account for areas that were not accessible. The survey aimed to collect a species list of birds using the survey area as these are the species that may be subject to adverse effects during Scheme construction.

Five monthly visits were made to the site between November 2016 and March 2017. All surveys commenced no later than one hour after sunrise, so as to include the periods of greatest bird activity. Surveys were also conducted as close to the time of low tide as possible, with the aim of recording all the birds that forage on the exposed foreshore.

The survey area (shown in Figure 11.5 of the Environmental Statement) was walked slowly and methodically with frequent stops to identify and count birds. Counts were based on birds that were either seen or heard. The survey area was chosen as the areas within the Order limits and adjacent habitats which had the greatest potential to support populations of species identified of wintering importance through the desk study (see Section 3.1).

2.3 Weather Conditions

Weather conditions recorded on site at the beginning of each transect are show in Table 2.1. The weather conditions on all visits were not adverse or unusual and do not significantly influence the survey findings.

Table 2.1. – Weather conditions during surveys.

Weather Conditions	Visit 1 21/11/16	Visit 2 08/12/16	Visit 3 18/01/17	Visit 4 02/02/17	Visit 5 10/03/17
Temperature (°C)	9	11	2	7	7
Cloud Cover (/8)	8/8	8/8	2/8	8/8	6/8
Wind (Beaufort scale)	0	0	1	1	0
Precipitation	Very light rain	None	None	None	None

3 Results and evaluation

3.1 Desk Study

Data collected shows that numerous bird species have been recorded within 2km of the site during the last 10 years. These include mute swan *Cygnus olor*, goosander *Mergus merganser*, shelduck *Tadorna tadorna*, cuckoo *Cuculus canorus*, kestrel *Falco tinnunculus*, dipper *Cinclus cinclus*, jay *Garrulus glandarius*, tree pipit *Anthus trivialis*, grey wagtail *Motacilla cinerea*, lesser spotted woodpecker *Dryobates minor*, song thrush *Turdus philomelos* and marsh tit *Poecile palustris*. These species are additional to those listed in the citation documents for the local statutory designated sites.

Broadland qualifies as a SPA by supporting populations of European importance of the following species over winter: Bewick's swan *Cygnus columbianus bewickii*, bittern *Botaurus stellaris*, hen harrier *Circus cyaneus*, ruff *Philomachus pugnax*, whooper swan *Cygnus cygnus*, gadwall *Anas strepera*, pink-footed goose *Anser brachyrhynchus* and shoveler *Anas clypeata*. The SPA also regularly supports 20,000 wildfowl over winter including the above species as well as cormorant *Phalacrocorax carbo*, great crested grebe *Podiceps cristatus*, coot *Fulica atra*, bean goose *Anser fabalis*, white-fronted goose *Anser albifrons*, wigeon *Anas penelope*, teal *Anas crecca*, pochard *Aythya farina* and tufted duck *Aythya fuligula*.

The Broadland Ramsar site regularly supports the following bird species in internationally important wintering numbers: Bewick's swan, Eurasian wigeon, gadwall, shoveler. The wintering populations of pink-footed goose and greylag goose *Anser anser* are also noted as worthy of consideration. The site also supports important wintering populations of cormorant, bittern, bean goose, greater white-fronted goose, teal, pochard, smew *Mergellus albellus*, hen harrier, water rail *Rallus aquaticus* and ruff.

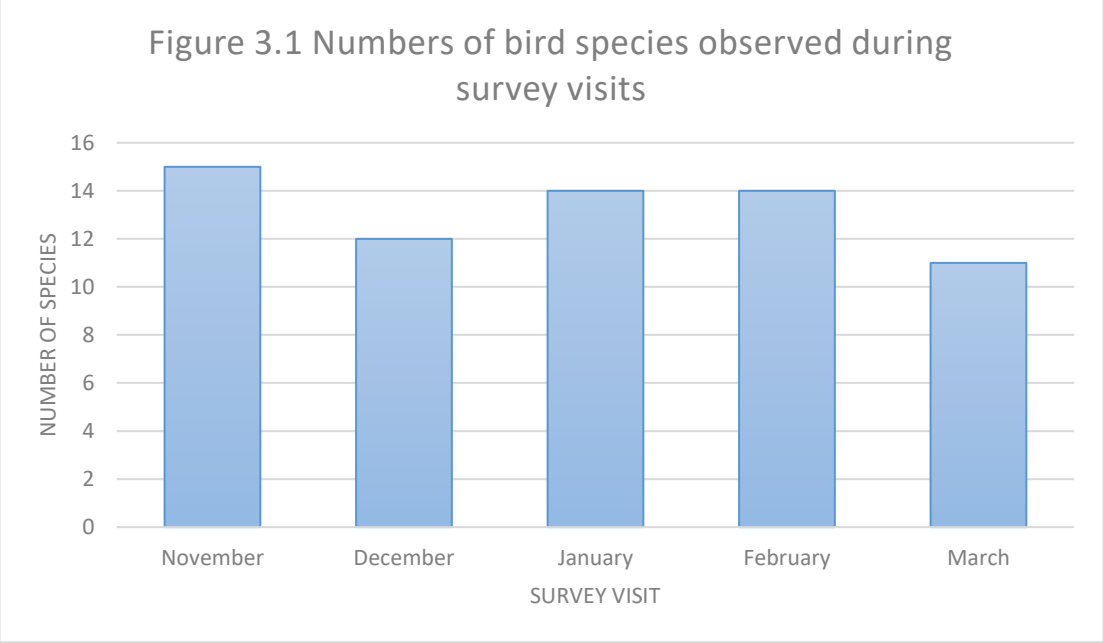
3.2 Wintering Bird Survey Results

Survey visits identified 25 species of bird that inhabit the Lake Lothing foreshores during the winter. The total number of species observed was broadly consistent during each survey visit, with little variation between the species encountered due to fairly uniform habitat found within the survey area. The species list obtained from all survey visits is shown in Table 3.1. The change in numbers of species across the five site visits is shown in Figure 3.1.

Table 3.1 – Survey results by species.

Common Name	Scientific Name	Visit Survey Records
Black-headed gull	*Chroicocephalus ridibundus*	**1,2,3,4,5**
Blue tit	*Cyanistes caeruleus*	**5**
Carrion crow	*Corvus corone*	**1,2,3,4,5**
Chaffinch	*Fringilla coelebs*	**1,4**

Common Name	Scientific Name	Visit Survey Records
Cormorant	*Phalacrocorax carbo*	**1,3,4,5**
Feral pigeon	*Columba livia*	**1,2,3,4,5**
Great black-backed gull	*Larus marinus*	**1,4**
Great crested grebe	*Podiceps cristatus*	**2**
Greenfinch	*Chloris chloris*	**3**
Grey heron	*Ardea cinerea*	**2**
Herring gull	*Larus argentatus*	**1,2,3,4,5**
Jackdaw	*Corvus monedula*	**2**
Lesser black-backed gull	*Larus fuscus*	**2,5**
Little egret	*Egretta garzetta*	**2,3,4,5**
Little grebe	*Tachybaptus ruficollis*	**1**
Magpie	*Pica pica*	**1,2,3**
Mallard	*Anas platyrhynchos*	**3**
Moorhen	*Gallinula chloropus*	**1**
Mute swan	*Cygnus olor*	**4**
Oystercatcher	*Haematopus ostralegus*	**1,3,4**
Pied wagtail	*Motacilla alba*	**1,2,3,4,5**
Redshank	*Tringa tetanus*	**1,2,3,4,5**
Robin	*Erithacus rubecula*	**1,3,4**
Wood pigeon	*Columba palumbus*	**1**
Wren	*Troglodytes troglodytes*	**3,4,5**



3.3 Value of the Survey Area

The majority of the survey area is made up of the open water of Lake Lothing itself. Much of the banks of the Lake have been modified and are now vertical faces of either concrete or wooden material. A small area (Jen Weld) is more natural with areas of sand, gravel and mud bordering the lake as well as a small area of grassland and scrub.

Overall, the survey area is considered to be of local value due to the small number of birds using it. The area is predominantly a feeding area for gulls, with occasional use by small numbers of waders. Few birds were seen to utilise the habitats adjacent to Lake Lothing and those that did were common woodland birds, typical of the scrub habitat found.

Two species referenced in the Broadland SPA and Ramsar citations were encountered: cormorant and great crested grebe. The survey area is considered to be of local value to these species.

3.4 Assessment of effects of the Scheme

The Scheme is likely to be a source of additional noise and visual disturbance during its construction, however these effects will be temporary. The area is already subject to high levels of disturbance due to its location within the town of Lowestoft and the presence of heavy industry around Lake Lothing.

Although once constructed the crossing will result in land take of both the terrestrial habitats and riparian habitats in Lake Lothing itself, this land was found to support a low level of bird activity. Large areas of similar habitat will remain unaffected by the Scheme and exist adjacent to the areas of land take.

4 References

- Bibby C., N. Burgess, D. Hill & S. Mustoe (2000). *Bird Census Techniques: 2nd edition.* Academic Press.