

Land off Victoria Road West, Littlestone, Kent

Wintering Bird Surveys

10th May 2019/ Ref No 2016/10/14

Client: Furnival Farming Partnership



Prepared by Martin Sutherland and Katia Bresso CEnv MIEEM
Trading as 'KB Ecology Ltd' (Reg 7595382)
9 Barleyfields,
Weaving, Maidstone
ME145SW Kent
Tel: 07810 412 773
Email: katia.bresso@kbecology.co.uk

Copyright KB Ecology Ltd. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from KB Ecology Ltd. If you have received this report in error, please destroy all copies in your possession or control.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by KB Ecology Ltd, no other party may use, make use of or rely on the contents of this report. No liability is accepted by KB Ecology Ltd for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of KB Ecology Ltd using due skill, care and diligence in the preparation of the same and no warranty is provided as to their accuracy. Surveys are undertaken on the understanding that nothing in the final report will be omitted, amended or misrepresented by the client or any other interested party. This report and its contents remain the property of KB Ecology Ltd until payment has been made in full.

Contents

1	Introduction	3
2	Designated Sites	4
3	Site description	6
4	Methods of survey	9
4.1	Walkover survey	10
4.2	Vantage Point survey	12
5	Survey findings	14
5.1	Wildfowl and waders	14
5.2	Vantage Point survey	17
5.3	Other bird species	21
6	Evaluation	22
7	Impact Assessment	25
7.1	Direct Impacts	25
7.2	Indirect Impact: Disturbance	25
8	Mitigation	26
8.1	On- site	26
8.2	Away from site - Financial Contribution to SARMS	27
9	References	30

1 Introduction

This report presents the findings of surveys of non-breeding and wintering birds at a site adjoining Victoria Road West at Littlestone, Kent.

The surveys were conducted in order to assess the value of the land to winter birds and any potentially significant effects that a development proposal may have on Dungeness, Romney Marsh and Rye Bay SPA, Dungeness, Romney Marsh and Rye Bay Ramsar, and Dungeness, Romney Marsh and Rye Bay SSSI.

Natural England requires this information in order to determine the significance of potential impacts and the scope for mitigation.

Due to its location and habitat composition it was considered likely that the site is used by designated species and could therefore be functionally linked to the Dungeness, Romney Marsh and Rye Bay SPA/Ramsar/SSSI.

The requested surveys included a vantage point survey to determine the use of the site by birds and their flightlines between the site and adjacent areas. This would cover the whole tidal cycle and various times of day.

2 Designated Sites

The Site is located within 350m of the Dungeness, Romney Marsh and Rye Bay SPA, Dungeness, Romney Marsh and Rye Bay Ramsar, and Dungeness, Romney Marsh and Rye Bay SSSI

The Dungeness, Romney Marsh and Rye Bay SPA qualifies under article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:

- Bewick's swan *Cygnus columbianus bewickii*
- Bittern *Botaurus stellaris*
- Hen harrier *Circus cyaneus*
- Golden plover *Pluvialis apricaria*
- Ruff *Philomachus pugnax*
- Aquatic warbler *Acrocephalus paludicola*
- Marsh harrier *Circus aeruginosus*
- Avocet *Recurvirostra avosetta*
- Mediterranean gull *Larus melanocephalus*
- Sandwich tern *Sterna sandvicensis*
- Common tern *Sterna hirundo*
- Little tern *Sterna albifrons*

The SPA also qualifies under article 4.2 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed in Annex I) in any season:

- Shoveler *Anas clypeata*

Assemblage qualification:

The SPA qualifies under article 4.2 of the Directive (2009/147/EC) as it is used regularly by over 20,000 waterbirds (waterbirds as defined by the Ramsar Convention) in any season; in the non-breeding season, the area is regularly used by 34,625 individual waterbirds (5 year peak mean 2002/3 – 2006/7), including (but not limited to) Bewick's swan European white-fronted goose *Anser albifrons albifrons*, wigeon *Anas penelope*, gadwall *A. strepera*, shoveler *A. clypeata*, pochard *Aythya ferina*, little grebe *Tachybaptus ruficollis*, great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, bittern, coot *Fulica atra*, golden plover, lapwing *Vanellus vanellus*, sanderling *Calidris alba*, ruff *Philomachus pugnax*, whimbrel *Numenius phaeopus* and common sandpiper *Actitis hypoleucos*.

Non-qualifying species of interest: The site is used by breeding bittern and kingfisher *Alcedo atthis* (both species listed in Annex I of the EC Birds Directive) in numbers of less than European importance (less than 1% of the GB population).

Under the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, the Dungeness, Romney Marsh and Rye Bay Ramsar site is important for breeding, wintering and passage waterbirds, wetland plants, bryophytes and invertebrates, and natural or near-natural wetland habitats. The site is also of international importance for

the aquatic warbler. The site qualifies under Criterion 5 because it regularly supports 20,000 or more waterbirds; in the non-breeding season, the site regularly supports 34,957 individual waterbirds (5 year peak mean 2002/3 – 2006/7). The site qualifies under Criterion 6 because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird in any season:

- Mute swan *Cygnus olor*
- Shoveler

The Dungeness, Romney Marsh and Rye Bay SSSI The extensive areas of open water, grazing marsh, reedbed and intertidal habitat in the SSSI provide safe feeding and roosting sites for nationally important numbers of waterfowl, together regularly supporting in excess of 20,000 individuals of more than 60 species. As well as the waterbird species listed below, which individually occur in nationally important numbers (exceeding 1% of the Great Britain populations), this assemblage regularly includes large numbers (greater than 12,000 individuals) of lapwing *Vanellus vanellus*. Sixteen species of waterfowl regularly winter here in nationally important numbers: mute swan, Bewick's swan, European white-fronted goose, wigeon, gadwall, teal, shoveler, pochard, little grebe, great crested grebe, cormorant, bittern, coot, golden plover, ruff and sanderling. Two species of waterfowl regularly occur in nationally important numbers during migration periods: whimbrel in spring and common sandpiper in autumn. The SSSI also supports nationally important numbers of hen harrier in winter and aquatic warbler on autumn passage.

3 Site description

The proposed development site is approximately six hectares in area, with 2.8ha for housing and 3.2ha for drainage and flood storage. This occupies nearly 50% of the 11.5 ha field of pasture in which it is situated

This field is Section A in the assessment.

The field consists of improved grassland which is divided, into western and eastern fields, by a drain that runs approximately north-south across the middle of the site. There is another more sinuous slack in the northern part of the western half of the field. These features were dry at the start of the survey but began to hold water from December.

There are a few hawthorn bushes in the northern parts of the eastern and western fields and a few trees and bushes along the southern boundary adjacent to the caravan park.

During the survey period, the field was grazed by cattle into October and by sheep in late November-early December and late January and early February. No livestock were present on other survey visits.

Housing lies adjacent to the northern and eastern boundaries of the field and a caravan park along the southern boundary.

To the west of the pasture containing the proposed development site is a large arable field which extends to the railway in the west, a ditch flowing east from the water treatment works (WTW) in the south and to the pastures that lie south of the eastern half of the caravan park.

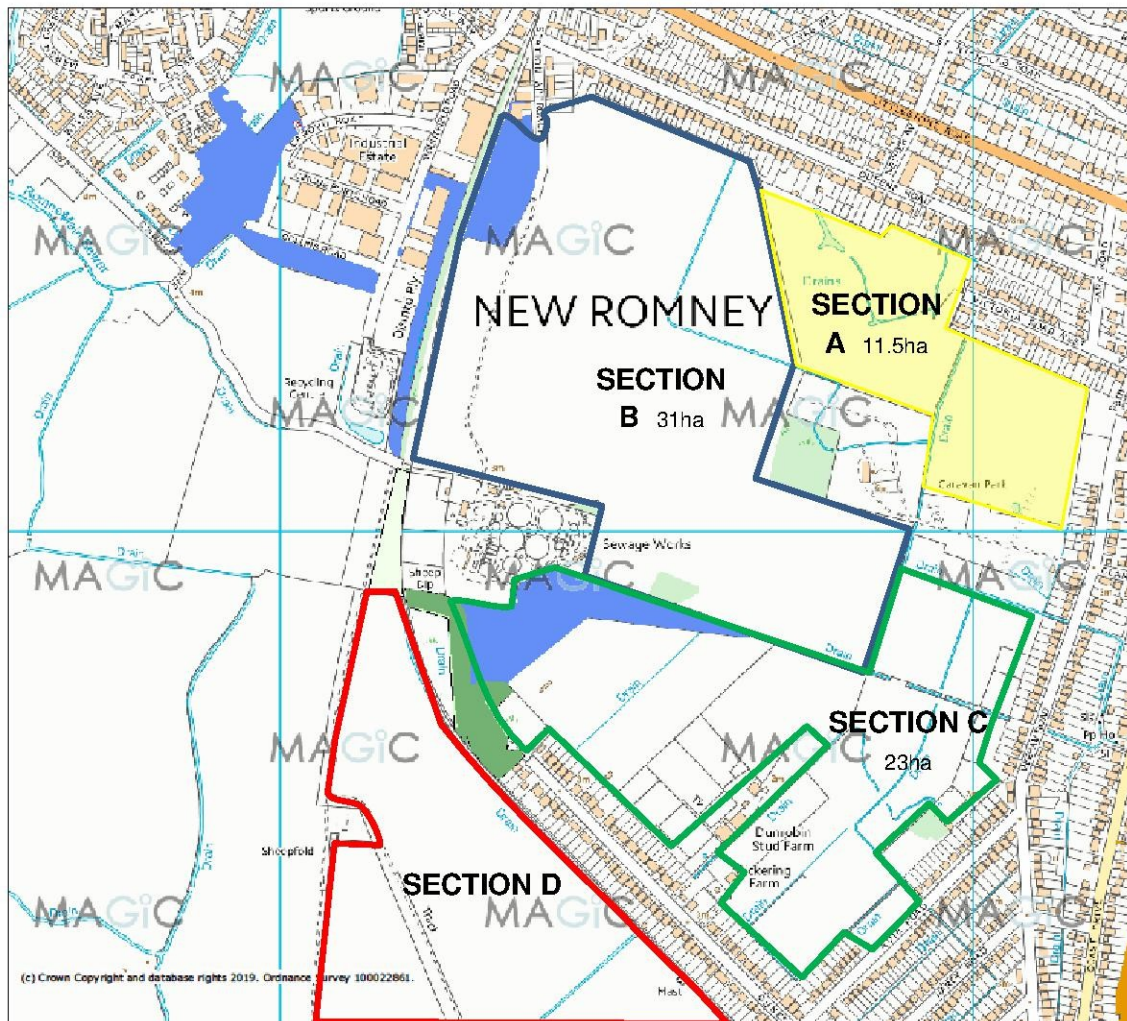
In the assessment, this arable field is Section B.

The pastures south of the caravan park and those south of the WTW drain are Section C in the assessment.

Arable farmland lies against the railway on the west side of Dunes Road. This area is Section D in the assessment.

Figure 1. Sections



**Legend**

Priority Habitat Inventory - Coastal Saltmarsh (England)

Priority Habitat Inventory - Coastal Sand Dunes (England)

Priority Habitat Inventory - Coastal Vegetated Shingle (England)

Priority Habitat Inventory - Maritime Cliffs and Slopes (England)

Priority Habitat Inventory - Mudflats (England)

Priority Habitat Inventory - Saline Lagoons (England)

Saline Lagoons (Wales)

Saltmarsh (Wales)

Sand Dunes (Wales)

Priority Habitat Inventory - Calaminarian Grassland (England)

Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)

Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)

Priority Habitat Inventory - Lowland Calcareous Grassland (England)

Priority Habitat Inventory - Lowland Dry Acid Grassland (England)

Priority Habitat Inventory - Lowland Meadows (England)

Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)

Priority Habitat Inventory - Upland Calcareous Grassland (England)

Priority Habitat Inventory - Upland Hay Meadows (England)

Priority Habitat Inventory - Lowland Heathland (England)

Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)

Priority Habitat Inventory - Upland Heathland (England)

Priority Habitat Inventory - Limestone Pavements (England)

Intertidal Substrate Foreshore (England and Scotland)

Boulders/Loose Rock

Gravel

Made Ground (Man Made)

Mud

Mud and Gravel

Not Present

Rock Platform

Rock Platform with Bank of Gravel

Rock Platform with Boulders/Loose Rock

Sand

Sand and Gravel

Sand and Mud

Unspecified

Intertidal Substrate (Wales)

Mud

Mud/Shingle

Rock

Rock/Shingle

Sand

Sand/Shingle

Shingle

Projection = OSGB36
xmin = 606400
ymin = 123300
xmax = 608400
ymax = 124700

Map produced by MAGiC on 12 April, 2019.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGiC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

0 0.1 0.2
km

4 Methods of survey

The survey consisted of two main parts:

- A walkover survey of the site and adjacent farmland and outlying areas considered to be of relevance to the survey,
- A vantage point survey which monitored selected species groups (wildfowl, waders and raptors) overflying or moving between the site and outlying areas.

These were conducted over 14 visits, two each month, from September 2018 to March 2019, by Martin Sutherland (with over 20 years of experience in bird surveying). The two monthly visits were timed to occur close to a full and a new moon respectively.

As the use of the area by wader species is most likely to occur around high tide, when the intertidal feeding areas are inaccessible, surveys were timed to include the high tide period and the falling or rising tide period.

Table 1. Visit dates, and the weather conditions and tide times on each were as follows:

Date	Weather	High tide	Low tide	Moon
13 Sept 2018	N-NW 1-2, 4/8-5/8 cloud. 12C-17C. Dry.	1410	0930	New+3
26 Sept 2018	SW 2-3, 0/8 cloud. 16C-18C. Dry.	1130	1840	Full+1
09 Oct 2018	SSW 2-3, 0/8 cloud. 15C-18C. Dry.	1110	0710	New
25 Oct 2018	NW-W 1-2, 1/8 incr. 8/8 cloud. 10C-12C. Dry.	1150	1930	Full+1
9 Nov 2018	SSE v SSW 3-4, 3/8-6/8 cloud. 12C-14C. Dry.	1140	0700	New+2
26 Nov 2018	NE 2, 8/8 cloud. 7C-8C. Occasional rain.	1220	0740	Full+3
6 Dec 2018	WSW 2-3, 8/8 cloud. 10C-12C. Occ light rain.	1010	1730	New-1
23 Dec 2018	SSW-WSW 2-4, 8/8 cloud. 10C-12C. Rain to 1030.	1050	1830	Full+1
8 Jan 2019	NW 3-4, 0/8 cloud. 7C-8C. Dry.	1220	0710	New+2
25 Jan 2019	SW 2-3, 8/8 cloud. 4C-8C. Light rain to 1115.	1340	0910	Full+4
6 Feb 2019	SW 2, 8/8 cloud. 7C-9C. Rain to 0930 then showers.	1200	1900	New+2
20 Feb 2019	SW 3-5, 0/8 cloud. 8C. Dry.	1120	0705	Full+1
5 Mar 2019	SW 3-4, 0/8 incr. 6/8 cloud. 8C-9C. Dry.	1050	1730	New-1
19 Mar 2019	SW 1 incr 3-4. 2/8-6/8 cloud. 7C-9C. Occ shower.	0930	1700	Full-2

4.1 Walkover survey

On arrival at the site the field was scanned through binoculars (positions A in Figure 1) and all birds present were counted and mapped. It was considered unnecessary to walk the field as it could be adequately surveyed from its perimeter. Entering the site would cause unnecessary disturbance when birds were present.

After the initial count, the observer relocated to Approach Road on the west side of the field immediately west of the site. This field was scanned for feeding or roosting waders and other species from various points along Approach Road and then the southern perimeter was walked so that the pastures south of the caravan park could be checked (position B in Figure 1).

These pastures were also scanned from the gateway at their southern end by Dunes Road (position C in Figure 1). The fields south of the Dymchurch railway line were also scanned around the high tide period from the west side of the railway south of Woodland Path (position D in Figure 1).

Counts from positions C and D were mainly done around the high tide period during VP survey breaks so that synchronous counts from the site, adjacent pastures and land to the south could be obtained.

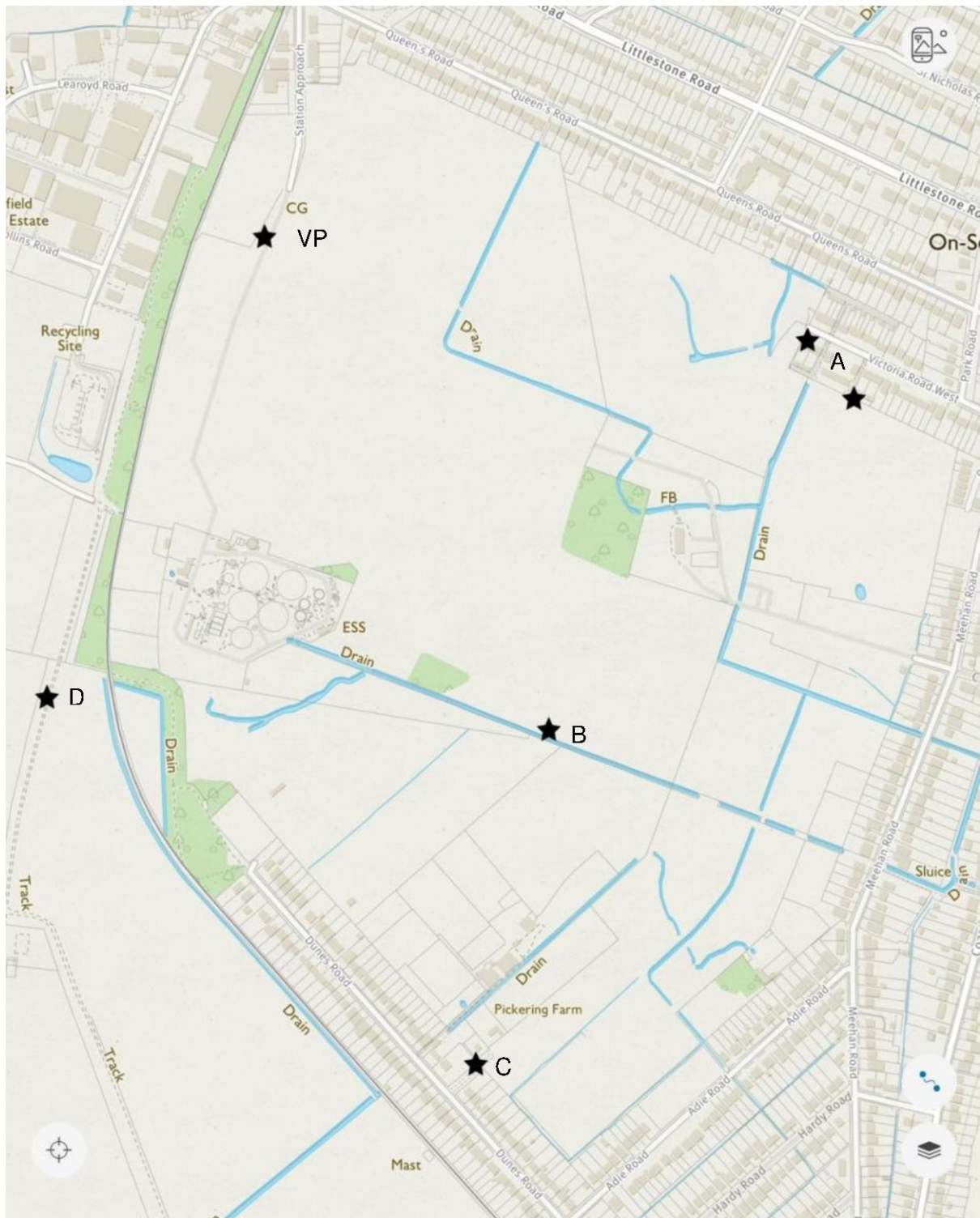


Figure 3. Littlestone survey area showing Vantage Point survey position and other relevant view points (A-D).

4.2 Vantage Point survey

The Vantage Point survey was conducted from the position shown in Figure 1. This position provided a good, unobstructed view of the site and the adjacent farmland and pastures. Some movements affecting the land to the south of Dunes Road could also be observed.

The position was sufficiently distant so that birds potentially approaching the site were not influenced by the observer's presence.

Observations were made mostly using naked eye and binoculars (Swarowski 8.5 x 42) with a telescope on hand (Swarowski ATS 80) if needed.

Observations were made in two-hour periods of observation with an hour break between each. Most VP sessions included a total of five hours VP survey, with two sessions of six hours to make up the required number of hours. These were conducted as follows:

Table 2. Vantage Point survey timing.

Date	Period 1	Period 2	Period 3	Total
13 Sept 2018	0830-1030	1130-1330	1430-1530	5
26 Sept 2018	1130-1330	1430-1630	1730-1830	5
09 Oct 2018	1100-1300	1400-1600	1700-1800	5
25 Oct 2018	1130-1330	1430-1630	1730-1830	5
9 Nov 2018	1100-1300	1400-1600	1700-1800	5
26 Nov 2018	0800-1000	1100-1300	1400-1500	5
6 Dec 2018	0930-1130	1230-1430	1530-1630	5
23 Dec 2018	0900-1100	1200-1400	1500-1600	5
8 Jan 2019	0900-1100	1200-1400	1500-1700	6
25 Jan 2019	0800-1000	1100-1300	1400-1600	6
6 Feb 2019	0800-1000	1100-1300	1400-1500	5
20 Feb 2019	0900-1000	1100-1300	1400-1600	5
5 Mar 2019	0900-1100	1200-1400	1500-1600	5
19 Mar 2019	0930-1130	1230-1430	1530-1630	5
Total hours				72

Weather and tide details are provided in Table 1.

The VP survey recorded all observations of wildfowl, waders and raptors. Gulls and most other species were not recorded.

5 Survey findings

A total of 54 bird species was recorded within the main survey area during the 14 visits between September 2018 and March 2019. A full list of species recorded is provided as Appendix 1.

The main survey area included three sections:

- A - the site,
- B - the adjacent arable farmland, and
- C - the pastures to the south of the caravan park.

The corridor of trees and scrub along the railway and the small woods adjacent to the caravan park and east of the water treatment works were excluded from the survey.

5.1 Wildfowl and waders

Table 3 shows the peak count of wildfowl and wader species recorded in the main survey area and in the area south of Dunes Road during the survey period. Where it is considered relevant, counts are shown for both high and low tides.

Table 3. Peak counts of wildfowl and wader species within the survey area and south of Dunes Road during the survey period, September 2018 to March 2019.

A = Field containing proposed development site

B = Adjacent arable land

C = Pastures to south of caravan park

D = Area south of Dunes Road

	A	B	C	D
Wigeon	18	0	0	0
Mallard	2	4	4	0
Oystercatcher (High tide)	8	0	11	0
<i>Oystercatcher (Low tide)</i>	2	0	2	0
Golden Plover	0	1	0	0
Lapwing (High tide)	0	78	10	0
<i>Lapwing (Low tide)</i>	0	0	0	0
Black-tailed Godwit (High tide)	3	0	0	0
<i>Black-tailed Godwit (Low tide)</i>	2	0	0	0
Curlew (High tide)	70	53	160	200
<i>Curlew (Low tide)</i>	11	0	21	55
Common Redshank	0	1	0	6
Green Sandpiper	0	0	0	2

Two further interesting Curlew observations south of the survey area included 250 circling over fields south of Dunes Road at 1532 on January 25th, and 230 flying over Lade Pits to the foreshore at 1145 on March 19th.

Table 3 shows that numbers of waders and wildfowl occurred in all parts of the survey area at high tide but just small numbers occurred outside the high tide period.

The total number of wildfowl and waders observed in the main survey area and south of Dunes Road on each survey visit are shown in Table 4.

Table 4. Total numbers of wildfowl and waders in the survey area and south of Dunes Road on each survey visit, September 2018 to March 2019.

	13 Sep	28 Sep	9 Oct	25 Oct	9 Nov	26 Nov	6 Dec	23 Dec	8 Jan	25 Jan	6 Feb	20 Feb	5 Mar	19 Mar
Wigeon	0	0	0	0	0	0	0	0	2	10	16	10	18	11
Mallard	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Oystercatcher (High tide)	0	0	0	0	0	0	13	11	12	8	8	4	0	0
<i>Oystercatcher</i> (Low tide)	0	0	0	0	0	0	0	0	0	0	3	0	0	0
Golden Plover	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Lapwing (High tide)	0	0	0	0	0	0	0	0	4	44	78	0	0	0
Black-tailed Godwit (High tide)	0	0	0	0	0	0	0	0	3	0	1	1	1	0
<i>Black-tailed</i> <i>Godwit (Low</i> <i>tide)</i>	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Curlew (High tide)	0	0	0	0	0	113	147	213	109	186	225	120	160	120
<i>Curlew (Low</i> <i>tide)</i>	0	0	0	0	0	0	0	0	0	0	11	0	0	0
Common Redshank	0	0	0	0	0	6	0	0	0	0	1	0	0	0
Green Sandpiper	0	0	0	0	0	1	0	2	0	0	0	0	0	0

Tables 5, 6 and 7 show the monthly peaks in each of the three parts of the main survey area.

Table 8 shows the monthly peaks in the area to the south of Dunes road.

Table 5. Peak monthly counts of wildfowl and wader species within Section A, the development proposal field.

	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Wigeon	0	0	0	0	10	16	18
Mallard	2	0	0	0	1	2	0
Oystercatcher (high tide)	0	0	0	5	3	8	0
<i>Oystercatcher (low tide)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>0</i>
Black-tailed Godwit (high)	0	0	0	0	3	2	1
<i>Black-tailed Godwit (low)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>0</i>
Curlew (high tide)	0	0	0	0	31	70	70
<i>Curlew (low tide)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>11</i>	<i>0</i>

Table 6. Peak monthly counts of wildfowl and wader species in Section B, the arable fields adjacent to the proposed development field.

	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Mallard	3	2	0	0	4	2	2
Golden Plover	0	0	0	0	1	0	0
Lapwing	0	0	0	0	44	78	0
Common Snipe	0	0	0	1	0	0	0
Curlew	0	0	0	11	53	0	0
Common Redshank	0	0	0	0	0	1	0

*No waders or wildfowl were noted in the arable fields at low tide.

Table 7. Peak monthly counts of wildfowl and wader species in Section C, the pastures between the caravan park and Dunes Road.

	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Mallard	3	0	0	4	0	0	0
Oystercatcher High tide	0	0	0	11	8	4	0
<i>Oystercatcher Low tide</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2</i>	<i>0</i>
Lapwing	0	0	0	0	10	0	0
Curlew High tide	0	0	0	2	141	155	160
<i>Curlew Low tide</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>21</i>	<i>0</i>

Table 8. Peak monthly counts of wader species on the arable farmland south of Dunes Road.

	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Curlew (high tide)	0	0	113	200	155*	0	0*
<i>Curlew (low tide)</i>	<i>0</i>	<i>0</i>	<i>55</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Redshank (high tide)	0	0	6	0	0	0	0
<i>Redshank (low tide)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Green Sandpiper	0	0	0	2	0	0	0

* 25th Jan: 250 circling over fields south of Dunes Road at 1532

* 19th March: 230 from Lade Pits to foreshore at 1145



Image 1. The field off Victoria Road west. Birds visible are mostly curlew and gulls feeding and roosting.

5.2 Vantage Point survey

Table 9 shows the selected species observed during the vantage point surveys. As previously stated, the VP survey recorded all observations of wildfowl, waders and raptors. Gulls and most other species were not recorded.

Table 9. Species recorded during the VP surveys. The figures show a) the number of observed flights, b) the total number of birds, and c) the peak count during each month.

Species		Sep	Oct	Nov	Dec	Jan	Feb	Mar
Mallard	a	2	0	0	3	0	0	0
	b	5			23			
	c	3			17			
Shoveler	a	0	0	0	1	1	0	0
	b				3	2		
Grey Heron	a	1	0	0	1	0	2	1
	b	1					2	1
Great Crested Grebe	a	0	0	0	0	0	0	1
	b							1
Marsh Harrier	a	0	0	0	0	1	0	0
	b					1		
Common Buzzard	a	9	4	1	0	3	3	6
	b	13	4	1		3	3	7
	c	4						2
Sparrowhawk	a	4	1	1	3	2	2	0
	b	4	1	1	3	2	2	
Kestrel	a	5	6	4	1	3	2	0
	b	5	6	4	1	3	2	
Peregrine	a	1	0	0	0	0	1	1
	b	1					1	1
Oystercatcher	a	0	0	0	2	1	1	0
	b				2	1	4	
Lapwing	a	0	0	1	1	6	1	0
	b			20	40	178	5	
	c					44		
Golden Plover	a	0	0	0	0	2	0	0
	b					2		
Curlew	a	0	0	1	3	7	4	5
	b			1	67	156	216	366
	c				55	83	155	160
Snipe	a	0	0	0	1	0	0	0
	b				1			
Green Sandpiper	a	0	0	1	0	0	0	0
	b			1				
Raven	a	0	0	1	0	0	0	0
	b			1				

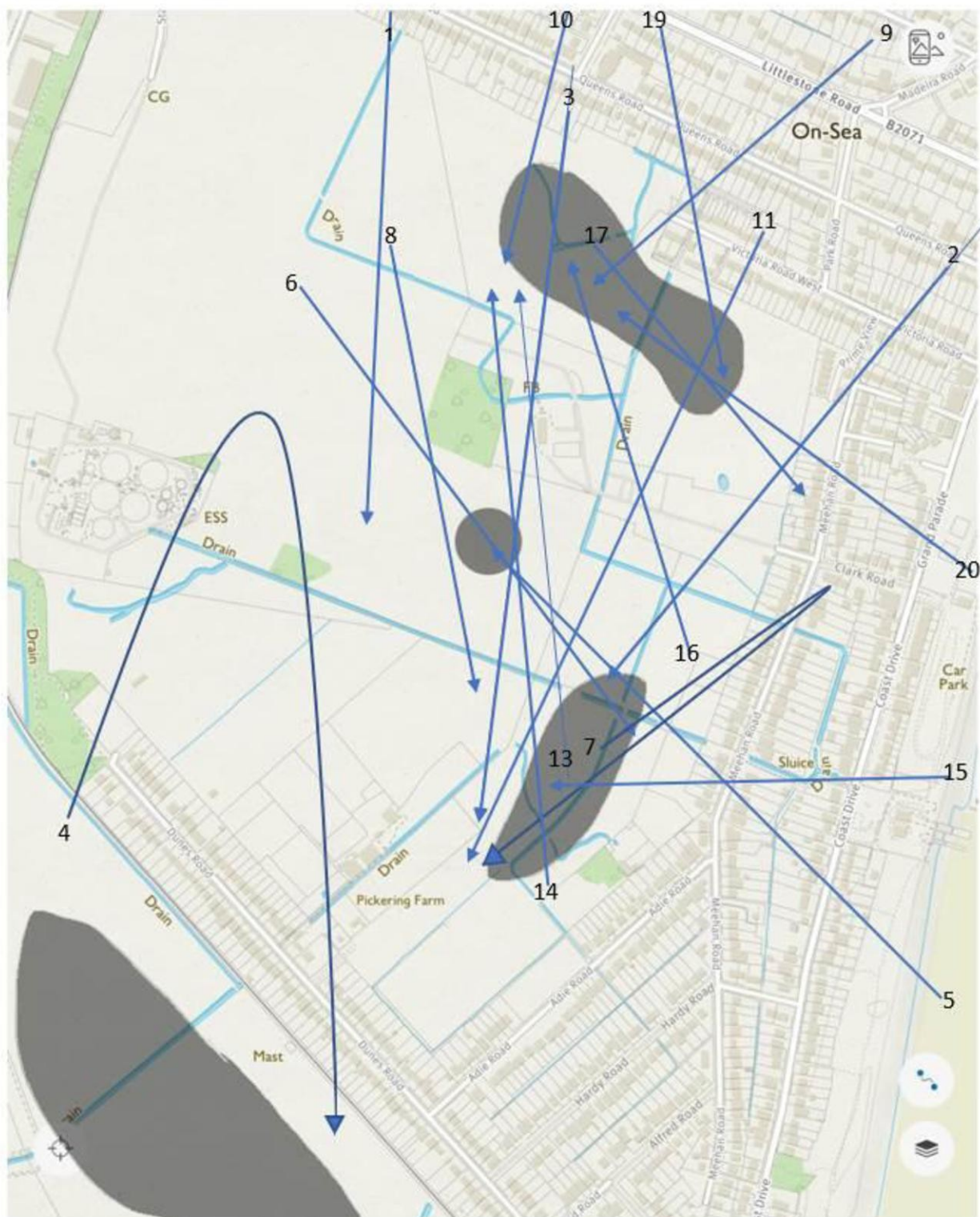


Figure 4. Curlew feeding and roosting areas within the Littlestone survey area and flights observed during the vantage point surveys. Details of these movements are given in Table 10.

Table 10. Details of Curlew movements shown in Figure 2.

#	Date	Time	Number of birds	Details
1	9 November	1240	1	Flew south, 30m height.
2	6 December	1110	1	Flew southwest, 20m height.
3	23 December	1009	11	Flew south, 30m height.
4	23 December	1306	55	Flew north the returned south, 20m height.
5	8 January	1220	53	In from southeast. Landed in Section B arable.
6	8 January	1316	5	In from northwest. Landed in Section C pasture.
7	8 January	1326	83	Disturbed by Buzzard from Section C pasture. Resettled.
8	25 January	1110	2	Flew southeast, 20m height.
9	25 January	1115	2	Into Section A pasture from northeast.
10	25 January	1215	1	Into Section A pasture from northeast.
11	25 January	1218	10	Into Section C pasture from northeast. May have landed.
12	6 February	1355	155	As #7. Disturbed in Section C pasture, circled and resettled. Not on map.
13	20 February	0900	3	Flew from Section C pasture to Section A pasture.
14	20 February	0931	15	Flew from Section C pasture to Section A pasture.
15	20 February	1006	43	Into Section C pasture from east.
16	20 February	1230	16	Flew from Section C pasture to Section A pasture.
17	5 March	0930	26	Off southeast from Section A pasture, disturbed by buzzard.
18	5 March	1000	160	As #7 and #12. Disturbed by buzzard in Section C pasture, circled and resettled. Not on map.
19	19 March	0932	70	In to Section A pasture from north.
20	19 March	0950	40	In to Section A pasture from southeast. Considered likely to involve some of #19 birds.

Two further interesting curlew observations south of the survey area included 250 circling over fields south of Dunes Road at 1532 on January 25th, and 230 flying over Lade Pits to the foreshore at 1145 on March 19th.

5.3 Other bird species

Table 11. Peak counts of raptors and other wetland species recorded within the survey area during the survey period, September 2018 to March 2019.

	Section A	Section B	Section C
Grey Heron	0	1	1
Sparrowhawk	1	1	0
Buzzard	2	4	1
Kestrel	1	2	1
Peregrine	0	1	0
Moorhen	0	0	2

6 Evaluation

The aim of these surveys was to assess any potentially significant effects that a proposed development may have on the birds of the Dungeness, Romney Marsh and Rye Bay SPA, Ramsar and SSSI. Species of most interest are those included in the site designations which mostly include wintering wildfowl and waders.

Table 12 shows the records for the specific target species of the SPA/RAMSAR/SSSI site.

Table 12. Records for the specific target species of the SPA/RAMSAR/SSSI site.

	Named species of the SSSI	Named species of the SPA site	Named species of the RAMSAR site	Peak count in Section A (development area)	Peak count in Section B+C+D
aquatic warbler <i>Acrocephalus paludicola</i>	Yes		Yes		
avocet <i>Recurvirostra avosetta</i>	Yes	Yes			
bearded tit <i>Panurus biarmicus</i>	Yes				
Bewick's swan <i>C. columbianus bewickii</i>	Yes	Yes			
bittern <i>Botaurus stellaris</i>	Yes	Yes			
black-headed gull <i>Larus ridibundus</i>	Yes				
Cetti's warbler <i>Cettia cetti</i>	Yes				
common sandpiper <i>Actitis hypoleucos</i>	Yes	Yes			
common tern <i>S. hirundo</i>	Yes	Yes			
coot <i>Fulica atra</i>	Yes	Yes			
cormorant <i>Phalacrocorax carbo</i>	Yes	Yes			
European white-fronted goose <i>Anser albifrons albifrons</i>	Yes	Yes			
gadwall <i>Anas strepera</i>	Yes	Yes			
garganey <i>Anas querquedula</i>	Yes				
golden plover <i>Pluvialis apricaria</i>	Yes	Yes		2 (VP)	2 (VP)
great crested grebe <i>Podiceps cristatus</i>	Yes	Yes		1 (VP)	1 (VP)
hen harrier <i>Circus cyaneus</i>	Yes	Yes			
lapwing <i>Vanellus vanellus</i>	Yes			6 (VP)	222 (VP)
little grebe <i>Tachybaptus ruficollis</i>	Yes	Yes			
little tern <i>S. albifrons</i>	Yes	Yes			
Marsh harrier <i>Circus aeruginosus</i>		Yes		1 (VP)	1 (VP)
Mediterranean gull <i>Larus melanocephalus</i>	Yes	Yes			
mute swan <i>Cygnus olor</i>	Yes		Yes		
pochard <i>Aythya ferina</i>	Yes	Yes			
ruff <i>Philomachus pugnax</i>	Yes	Yes			
sanderling <i>Calidris alba</i>	Yes	Yes			
sandwich tern <i>Sterna sandvicensis</i>	Yes	Yes			
shoveler <i>Anas clypeata</i>	Yes	Yes	Yes	1 (VP)	3 (VP)
teal <i>Anas crecca</i>	Yes				
tufted duck <i>Anas fuligula</i>	Yes				
water rail <i>Rallus aquaticus</i>	Yes				
whimbrel <i>Numenius phaeopus</i>	Yes	Yes			
wigeon <i>Anas penelope</i>	Yes	Yes		18 (count)	0

Wader species

Although only seven wader species were recorded in the survey area during the winter surveys, four of these are included in the Spec 1 category of European Birds of Conservation Concern (BirdLife International (2017)). Spec 1 species are of Global

conservation concern. These are decreasing species which are considered vulnerable to continuing population declines. The four species are:

- Oystercatcher – 39% of European population winters in UK.
- Lapwing – 17%
- Curlew – 28%, and,
- Black-tailed Godwit – 28%.

Oystercatcher, curlew and black-tailed godwit were all recorded in Section A. However, curlew was the only wader species to be recorded in significant numbers, the counts representing a significant proportion of the SPA total.

Table 12 shows the peak counts of curlew in the Dungeness and Rye Bay SPA in the five winters from 2012/13 to 2016/17. These figures are from British Trust for Ornithology (BTO) Wetland Bird Survey (WeBS) data. This is a long-running scheme involving monthly counts of wildfowl, waders and selected other wetland species at sites throughout the UK. In 2016/17, a total of 2,771 wetland sites were monitored.

Table 13. Peak winter Curlew counts in the Dungeness and Rye Bay SPA during the five winters 2012-13 to 2016-17.

2012-13	2013-14	2014-15	2015-16	2016-17
804	742	387	346	462
Mean peak = 548.2				

The peak count in the overall survey area this winter was 225 which represent 41% of the mean peak in the SPA/Ramsar for these past five winters. The peak count in Section A (which includes the development site) was 70 birds, which represents 12.7% of the mean peak.

Birds were observed both feeding and roosting at all locations in the survey area where recorded.

It should be noted however that curlew are not a specific target species of the SPA/RAMSAR/SSSI, however the SPA is important for the total assemblage and numbers of wintering birds that it supports and curlew are part of this wintering bird assemblage.

Wildfowl species

Only two wildfowl species, wigeon and mallard, were observed feeding within the survey area with maxima of 18 and two birds respectively. Shoveler was noted on two dates on the VP surveys, totalling just five birds, overflying the site.

The paucity of wildfowl numbers is likely to be due to the proximity of housing to the few areas of suitable habitat which exist in Section A.

Other species

A full list of species recorded in the survey area during the 14 visits between September 2018 and March 2019 is provided as Appendix 1.

Appendix 2 provides a table of all species of conservation importance recorded in the survey area.

7 Impact Assessment

7.1 Direct Impacts

The specific target species of the SPA/RAMSAR/SSSI site are not expected to be impacted by loss of habitat, due to their negligible usage of the site (as per table 12).

Curlew will be impacted by the proposal due to loss of roosting and foraging habitat (used at high tide only). This species is not a specific target species of the SPA/RAMSAR/SSSI, however the SPA is important for the total assemblage and numbers of wintering birds that it supports and curlew are part of this wintering bird assemblage. The impact of loss of curlew roosting and foraging habitat is considered minor due to the low percentage of local population using the site, the low frequency of use of the site and the extent of similar alternative habitat in the vicinity.

It should also be noted that the proposed detention basin and flood storage area, alongside the swales, will provide new roosting and foraging opportunities (for bird species less prone to susceptible to disturbance). Also, this area will be allowed to naturalise (being presently semi-improved grassland).

7.2 Indirect Impact: Disturbance

7.2.1 On-site

Potential impacts during the construction period include noise and disturbance.

Curlew are very susceptible to disturbance, having a very low tolerance of human presence. At present the field is mainly fringed by back gardens with fences and hedges between the private gardens and the site. During the survey visits, little human activity was observed in these gardens and it appeared that birds felt safe to roost and feed in the pasture. The proposal will place a road (for access only, not a 'through road') adjacent to the site so one can expect human activity to be more visual and frequent close to the field in the long term, which could dissuade curlew from using the retained field.

It should be mentioned that light aircraft approaching Lydd airport regularly overfly the area it being directly under the flight path. The evidence observed during the surveys was that birds were mostly habituated to this potential disturbance.

7.2.2 Away from site

In the long term, the development could increase recreational disturbance to the arable field and coastal habitats. Coastal birds are vulnerable to human activities including bait digging, drone flying, dog walking and wildfowling. Disturbance can cause reduced time feeding or individuals being restricted to areas with poorer quality food supply, both of which can influence survival and breeding success.

8 Mitigation

8.1 On- site

8.1.1 Construction Stage

A method statement will be designed and deployed to reduce noise, dust, pollution and vibration during the construction period. This will include the use of hoarding and screening, limiting the use of lighting, limiting of works to specific hours, judicious positioning of heavy plant and use of modern, quieter plants and machinery.

Fresh, salt and ground water quality should not be affected by the development, including by increased sediment loads. A construction method statement to prevent any degradation in water quality will be devised and adhered to throughout the construction process.

8.1.2 Long-Term

The design of the proposal has been carefully thought through to limit any human interaction with the retained land that will be allowed to naturalise, providing suitable areas for birds. This land will be managed to maximise its biodiversity quality.

8.1.2.1 Dog Control and Children's Play

The formal open space for children's play is provided off site at Grand Parade which already in use as a designated children's play area. The informal open space areas within the scheme comprise a circular walk within the residential estate roads along a tree lined avenue and circulating to only interface with the countryside within a defined path along the south eastern edge of the residential area, enclosed by a stock proof fence and a vegetated screen, to prevent public access within the retained field/wetland area.

8.1.2.2 Screen Planting

A screen of native shrub species (belt of scrub with hawthorn, salix, blackthorn; not just a hedgerow) will be planted between the development and the retained field/wetland area, to reduce visual disturbance from the development onto birds and provide additional foraging opportunities. See Figures 5 and 6.

8.1.2.3 Retained Field with Detention Basin and Flood Storage Area

The design of the scheme secures an area almost double the size of the development proposal area, that will remain naturalised environment, with a detention basin and flood storage area, where public access is excluded. This area will be the subject of long-term management secured by an appropriately worded planning condition; this will include

reduction of the grazing pressure¹ and creation of 'wader scrapes'² to increase its biodiversity quality.

8.1.2.4 Information Packs

Information packs will be distributed to new home owners to inform them about the following:

- a. The sensitive nature of the adjacent SSSI, SPA and Ramsar site, why it is an important ecological habitat and the important populations of bird species it supports.
- b. The location and extent of the SSSI, SPA and Ramsar site, with inclusion of maps with footpaths and the designated areas illustrated.
- c. The availability of accessible, alternative everyday dog walking routes in the immediate vicinity of the Site should be made clear, with alternatives to the coastal path provided.
- d. The reasons why it is important to keep dogs on leads, for example, to prevent dogs entering habitats during the breeding season and fields during the winter period.

8.2 Away from site - Financial Contribution to SARMS

The developer will be obliged to make a financial contribution per dwelling to the 'Dungeness Complex - Sustainable Access and Recreation Management Strategy' (SARMS)³.

¹ https://www2.rspb.org.uk/Images/wetgrasslandmanual_tcm9-132779.pdf

² https://www.rspb.org.uk/globalassets/downloads/documents/farming-advice/scrapecreationforwildlife_tcm9-255102.pdf

³ [https://www.folkestone-hythe.gov.uk/media/5656/81-Sustainable-Access-and-Recreational-Management-Strategy-SARMS-2017/pdf/8.1_Sustainable_Access_and_Recreational_Management_Strategy_\(SARMS\)_2017.pdf](https://www.folkestone-hythe.gov.uk/media/5656/81-Sustainable-Access-and-Recreational-Management-Strategy-SARMS-2017/pdf/8.1_Sustainable_Access_and_Recreational_Management_Strategy_(SARMS)_2017.pdf)

Wintering Bird Surveys

Land off Victoria Road West, Littlestone,

KB Ecology Ltd- May 2019

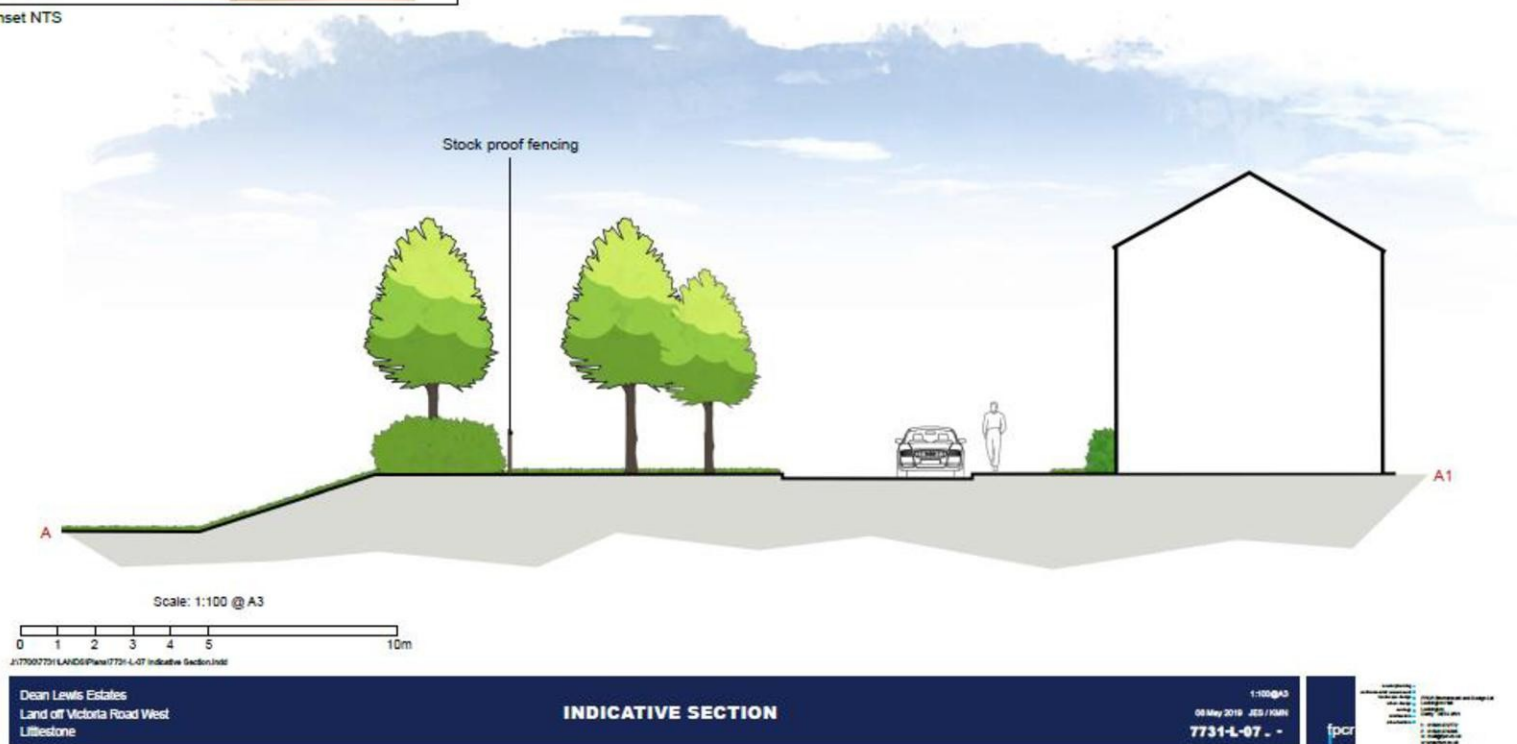
Figure 5



Figure 6



This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.



9 References

BirdLife International (2017) 'European Birds of Conservation Concern: Populations, Trends and national responsibilities' Cambridge, UK: BirdLife International.

Cor J. Smit & George J.M. Visser (1993) 'Effects of disturbance on shorebirds: a summary of existing knowledge from the Dutch Wadden Sea and Delta area'

Cutts, N, K Hemingway & J Spencer Version 3.2, (2013) 'Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects' University of Hull.

Eaton MA *et al* (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

Gilbert G, DW Gibbons and J Evans (1998) 'Bird Monitoring Methods' RSPB.

<https://www.bto.org/volunteer-surveys/webs/publications/webs-annual-report>

<http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

Liley, D., Cruickshanks, K., Waldon, J. & Fearnley, H. (2011). 'Exe Estuary Disturbance Study'. Footprint Ecology

Appendix

Table 13. Full list of species recorded within the main survey area September 2018 to March 2019.

A = Field containing proposed development site

B = Adjacent arable land

C = Pastures to south of caravan park

VP = Recorded on Vantage Point survey.

	A	B	C	VP
Wigeon	+	-	-	-
Mallard	+	+	+	+
Shoveler	-	-	-	+
Cormorant	-	-	-	+
Grey Heron	-	+	+	+
Great Crested Grebe	-	-	-	+
Marsh Harrier	-	+	-	+
Sparrowhawk	+	+	+	+
Buzzard	+	+	+	+
Kestrel	+	+	+	+
Peregrine	-	+	+	+
Moorhen	-	-	+	+
Oystercatcher	+	-	+	+
Golden Plover	-	+	-	+
Lapwing	-	+	+	+
Common Snipe	-	-	-	+
Black-tailed Godwit	+	-	-	+
Curlew	+	+	+	+
Green Sandpiper	-	-	-	+
Common Redshank	-	+	-	+
Black-headed Gull	+	+	+	-
Common Gull	+	+	+	-
Lesser Black-backed Gull	+	+	+	-
Herring Gull	+	+	+	-
Great Black-backed Gull	+	-	+	-
Feral Pigeon	+	+	-	-
Stock Dove	+	-	-	-
Wood Pigeon	+	+	+	-
Magpie	+	+	+	-
Jackdaw	+	+	+	-
Rook	+	+	+	-
Carrion Crow	+	+	+	-
Raven	-	-	-	+
Blue Tit	+	-	-	-

Great Tit	+	-	-	-
Skylark	-	+	-	-
Chiffchaff	+	-	-	-
Wren	+	-	-	-
Starling	+	+	+	-
Blackbird	+	-	-	-
Song Thrush	+	-	-	-
Redwing	+	+	-	-
Mistle Thrush	+	-	-	-
Robin	+	-	-	-
Black Redstart	-	+	-	-
Duncock	+	-	-	-
House Sparrow	+	-	-	-
Grey Wagtail	-	+	-	-
Pied Wagtail	+	+	+	-
Meadow Pipit	+	+	+	-
Chaffinch	+	+	-	-
Greenfinch	-	+	-	-
Linnet	-	+	-	-
Reed Bunting	-	+	+	-
	35	32	24	20

All species of conservation importance

Table 14 gives details of all species of conservation importance that were recorded in the survey area during the winter bird survey.

Species considered to be of conservation importance are those included in the Spec 1 category of European Birds of Conservation Concern (Birdlife International (2017), Schedule 1 of the Wildlife and Countryside Act (WCA), the Birds of Conservation Concern (BOCC) Red and Amber lists (Eaton M.A *et al* (2015), the UK Biodiversity Action Plan priority list (rev2016), and Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) priority list.

Table 13. Species of conservation importance recorded in the survey area at Littlestone during the 2018-19 winter bird surveys. **Species in bold were recorded in the proposed development area.**

Spec 1 = European birds of Global Conservation Concern (Birdlife International 2017)

WCA Schedule 1 = Wildlife and Countryside Act.

BoCC Red List = Red List of Birds of Conservation Concern.

BoCC Amber List = Amber List of Birds of Conservation Concern.

UK BAP = Included in the UK Biodiversity Action Plan priority list (rev2016)

S41 = Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006) priority list.

	Spec 1	WCA Schedule 1	BoCC Red List	BoCC Amber List	UK BAP	S41
Wigeon	-	-	-	●	-	-
Mallard	-	-	-	●	-	-
Shoveler	-	-	-	●	-	-
Marsh Harrier	-	●	-	●	-	-
Kestrel	-	-	-	●	-	-
Peregrine	-	●	-	-	-	-
Oystercatcher	●	-	-	●	-	-
Lapwing	●	-	●	-	●	●
Black-tailed Godwit	●	-	●	-	●	●
Curlew	●	-	●	-	●	●
Green Sandpiper	-	●	-	●	-	-
Common Redshank	-	-	-	●	-	-
Black-headed Gull	-	-	-	●	-	-
Common Gull	-	-	-	●	-	-
Lesser Black-backed Gull	-	-	-	●	-	-
Herring Gull	-	-	●	-	●	●
Great Black-backed Gull	-	-	-	●	-	-
Stock Dove	-	-	-	●	-	-
Skylark	-	-	●	-	●	●
Starling	-	-	●	-	●	●
Song Thrush	-	-	●	-	●	●
Mistle Thrush	-	-	●	-	-	-
Black Redstart	-	●	-	-	-	-
Duncock	-	-	-	●	●	●
House Sparrow	-	-	●	-	●	●
Grey Wagtail	-	-	●	-	-	-
Meadow Pipit	-	-	-	●	-	-
Linnet	-	-	●	-	●	●
Greenfinch*	-	-	●	-	-	-
Reed Bunting		-	-	●	●	●

*British race is red-listed

Further details on some of the above species

Black Redstart A young male singing by the water treatment works (WTW) on 19th March, 2019.

Pied Wagtail Large numbers on the arable field adjacent to the WTW included peaks of 170 in November and 200 in January. At least five White Wagtails were with the flock on 19th March.