

## APPENDIX 10.14

### OBSERVATIONS FROM THE RUNCORN GAP OF BIRD MOVEMENTS IN 2006 BETWEEN THE MIDDLE MERSEY ESTUARY (SPA) AND THE UPPER MERSEY ESTUARY (LOCAL WILDLIFE SITE)

#### Key to Abbreviations: Bird Species:-

GB = Great Black-backed Gull  
 LB = Lesser Black-backed Gull  
 HG = Herring Gull  
 CM = Common Gull  
 BH = Black-headed Gull  
 CA = Cormorant  
 CU = Curlew  
 SU = Shelduck  
 DN = Dunlin  
 MA = Mallard  
 OC = Oystercatcher  
 FF = Fieldfare  
 RE = Redwing  
 RK = Redshank  
 H = Heron  
 PW = Pied Wagtail  
 GW = Grey Wagtail

**FU** = Flying up the Estuary

**FD** = Flying down the Estuary

20m arl = 20 metres above the road level of the bridge

30m arl = 30 metres above the road level of the bridge etc

Individual gulls were not recorded during the dawn and dusk influxes. The numbers of gulls flying within these times are recorded on the histograms.

#### Survey on 25-09-2006

Weather: Dry, scattered cloud

Temp: 15°C

Wind speed: 1-3 mph SW

High water: 1.25 and 13.39 hours

Low water: 8.03 and 20.10 hours

Sunrise: 7.03 sunset 19.04

Time	Bird presence and movements	Other observations
6.30	Low nos. gulls <b>FU</b> over bridge	Ebbing tide, fairly low
6.45	Large nos. gulls <b>FU</b> over bridge, MAx7 feeding on N bank 100m downstream of bridge	CGX50 on downstream sandbank
6.55	CGx4 FU 10m above water under bridge	No change
7.00	Large nos. gulls <b>FU</b> over bridge, MAx7 feeding on N bank 100m downstream. PWx2 feeding on N bank between bridges	CGx50 on downstream sandbank, BHx2 feeding on upstream sandbank
<b>Cont.</b>		

Survey on 25-09-2006 continued		
Time	Bird presence and movements	Other observations
7.04	Large nos. gulls <b>FU</b> over bridge, no change but M <sub>A</sub> x4 swam downstream under bridge	No change
7.07	Large nos. gulls <b>FU</b> over bridge, no change	No change but H <sub>x</sub> 1 feeding on upstream sandbank
7.15	Large nos. gulls <b>FU</b> over bridge, P <sub>W</sub> x2 feeding between bridges.	Mixed flock of gulls (500+) on downstream sandbank + C <sub>U</sub> x12, S <sub>U</sub> x17, C <sub>G</sub> x50+, H <sub>x</sub> 1. H <sub>x</sub> 1 and B <sub>H</sub> x2 on upstream sandbank. Tide ebbing
7.30	No change but low nos. gulls <b>FU</b> over bridge	No change
7.33	No change but low nos. gulls <b>FU</b> over bridge	No change but B <sub>H</sub> x50+ on upstream sandbank, flew down from Upper Estuary
7.37	No change	No change but 2 more H on upstream sandbank
7.45	No change	No change but gulls on upstream sandbank moved further up Estuary.
8.00	No change	No change, low tide
8.03	No change but P <sub>W</sub> x2 flew up Estuary.	No change, low tide
8.15	Very low nos. gulls <b>FU</b> over bridge. No movements of wildfowl, waders and other seabirds. Several B <sub>H</sub> and C <sub>M</sub> flying around N bank between bridges	Mixed flock of gulls (500+) on downstream sandbank + C <sub>U</sub> x12, S <sub>U</sub> x17, C <sub>G</sub> x50+, H <sub>x</sub> 1
8.30	Very low nos. gulls <b>FU</b> over bridge. Several B <sub>H</sub> and C <sub>M</sub> flying around exposed mud on N bank below bridges	No change
8.45	No change. H <sub>x</sub> 1 landed on N bank mudflat between bridges	No change
8.51	H <sub>x</sub> 1 <b>FD</b> to downstream sandbank for fishing	No change
9.00	No change	No change
9.15	No change	No change
9.30	No change	No change
9.45	No change. Pair G <sub>W</sub> landed on shore below railway bridge	No change
10.00	No change	No change
10.15	No change	No change
10.30	No change	No change
10.45	No change	No change
11.00	No change	No change
11.15	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	Gulls on upstream sandbank flown up Estuary. H still present. No change in birds on downstream sandbank
11.30	No change except M <sub>A</sub> x2 feeding upstream on sandbank, and H <sub>x</sub> 1 between the bridges moved downstream	No change
11.45	No change	No change
11.51	No change other than M <sub>A</sub> x2 <b>FD</b> , now M <sub>A</sub> x18 downstream of bridge	No change
12.00	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	No change
12.02	All Herons <b>FU</b>	Tide rising fast
12.04	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	No change
12.05	No change	No change
<b>Cont.</b>		

<b>Survey on 25-09-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
12.08	Roosting MA feeding on rising tidal waters	Gulls on downstream sandbank moved to higher part of sandbank. Tide rising
12.09	No change	No change
12.15	No bird movements between Upper and Lower Estuary. Pair GW still present	No change
12.18	No change	No change, tide rising
12.19	Mallards flew down Estuary	No change
12.30	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge (less than 20)	No bird movements
12.39	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	Environment Agency boat came up river, beneath bridges. Flock of Lapwings on downstream sandbank flew elsewhere in Middle Estuary
12.42	Very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	Environment Agency boat returned downstream
12.45	No bird movements	Tide rising very fast
12.48	No bird movements	Tide rising very fast
12.50	No bird movements except GWx2 flew up Estuary.	Tide rising very fast
13.00	No bird movements	Tide rising very fast
13.06	Large flock of Lapwing (1000+) and smaller waders (20+) landed 1 km downstream of bridge on sandbank	Tide rising very fast
13.30	Lapwing flock not evident but probably still on vegetated sandbank downstream. No bird movements between Upper and Middle Estuary	Tide rising very fast
13.45	No bird movements	Tide still rising
13.53	Large Lapwing flock visible on downstream sandbank	Tide still rising
13.56	Lapwing flown further downstream leaving only Hx3, CGx20+ and small nos. of gulls on downstream sandbank	Tide still rising
14.00	GWx2 calling near bridge. No bird movements up or down the Estuary	Tide till rising
14.15	No bird movements	Tide still rising slightly
14.28	No bird movements	High tide
14.29	No bird movements	Tide starting to ebb
14.30	GWx2 calling under bridge, no other bird movements	Tide starting to ebb
14.45	No bird movements	About 30 gulls on downstream sandbank
15.00	No bird movements	Tide ebbing quickly
15.15	No bird movements	Tide ebbing quickly
15.30	No bird movements	Tide ebbing quickly
15.45	No bird movements	Tide ebbing quickly
15.40	GWx2 calling under bridge, no other bird movements	Tide ebbing quickly
16.00	No bird movements except very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	Tide ebbing quickly
16.07	No bird movements except very occasional gulls (singles) <b>FU</b> and <b>FD</b> over bridge	Gulls, SU, L and CU and smaller waders on downstream sandbank, must have come from further west in Middle Estuary.
16.15	Small nos. gulls <b>FD</b> over bridge. No other bird movements	No change
<b>Cont.</b>		

<b>Survey on 25-09-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
16.20	Small nos. gulls <b>FD</b> over bridge. No other bird movements and nothing visible upstream.	Increased nos. of gulls + SU, L and CU and smaller waders on downstream sandbank, many gulls flying around sandbank waiting for exposure.
16.30	Low nos. gulls <b>FD</b> over bridge. No other bird movements and nothing visible upstream.	Increased nos. of gulls + SU, L, CU, Hx10 and smaller waders on downstream sandbank.
16.45	Small nos. gulls <b>FD</b> over bridge. GWx2 calling under bridge but no other bird movements and nothing visible upstream.	Large nos. of gulls + SU, L, CU, Hx10 and smaller waders on downstream sandbank.
16.47	No change but MSx10 <b>FU</b> over bridge	No change
17.00	Small nos. gulls <b>FD</b> over bridge. No other bird movements	Large nos. of gulls + SU, L, CU, Hx10 and smaller waders on downstream sandbank. Upstream sandbank still covered by tide.
17.02	No change but RKx2 <b>FD</b> and started feeding 40m downstream of bridge	No change
17.15	Small nos. gulls <b>FD</b> over bridge. No other bird movements. RKx2 still feeding downstream.	No change
17.30	Small nos. gulls <b>FD</b> over bridge. No other bird movements. RKx2 still feeding downstream.	No change except MAx16 flew from across river and landed downstream of railway bridge to feed.
17.45	Increasing nos. gulls <b>FD</b> over bridge. No other bird movements.	No change
18.00	Increasing nos. gulls <b>FD</b> over bridge. Hx1 <b>FD</b> but no other bird movements. MAx10 and RKx2 still feeding downstream.	No change
18.06	No change except CAx6 <b>FU</b> below bridge	No change
18.15	Large nos. gulls <b>FD</b> over bridge. MA, RK and H still feeding downstream. No other bird movements	No change
18.30	Larger nos. gulls <b>FD</b> over bridge. MA, and RK still feeding downstream but Hx1 <b>FU</b> . No other bird movements	No change
18.45	Large nos. gulls <b>FD</b> over bridge. No other bird movements past bridge. CA, SU, L and CU still on downstream sandbank.	Some gulls and other birds on downstream sandbank beginning to leave and flying downstream in Middle Estuary.
19.00	Large nos. gulls <b>FD</b> over bridge. RKx2 <b>FU</b> . MA still on N bank roosting. No other bird movements past bridge.	No change
19.15	Large nos. gulls <b>FD</b> over bridge. MA still on N bank roosting. No other bird movements past bridge.	No change, low tide
19.30	Large nos. gulls <b>FD</b> over bridge. No other bird movements past bridge.	No change, low tide. Becoming dark.

### Survey on 02-10-2006

Weather: Heavy showers

Temp: 13°C

Wind speed: 10 mph W

High water: 7.04 and 19.44 hours

Low water: 13.58 hours

Sunrise: 7.15 sunset 18.47

Time	Bird presence and movements	Other observations
6.30	Too dark to see birds	Rain, high & rising tide
6.45	Too dark to see birds	Rain, high & rising tide
7.00	Large nos. gulls <b>FU</b> over N part of bridge	Upstream sandbanks covered
7.15	Large nos. gulls <b>FU</b> over N part of bridge, some up to 300m inland	Tide still rising slightly
7.19	CA <b>FU</b> , 5m above water	Tide still rising slightly
7.30	Gulls <b>FU</b>	Heavy rain. Tide still rising slightly. 15-20mpg
7.45	Gulls <b>FU</b>	High tide (neap tide)
7.48	CA <b>FU</b> , 3m above water	Persistent rain
7.52	CA <b>FU</b> , 3m above water	Persistent rain
8.00	Low nos. gulls <b>FU</b>	Persistent rain, downstream sandbanks exposed, gullsx150, CGx8 CUx16 Hx1 Lx1000+ SUx10+
8.10	Low nos. gulls <b>FU</b>	Tide ebbing
8.12	Low nos. gulls <b>FU</b>	Peregrine hunting along bridges
8.15	Occasional gulls <b>FU</b>	Rain ceased. Upstream sandbank slightly exposed, downstream sandbanks Lx1000+MAx25
8.30	Occasional gulls <b>FU</b>	Occ. light rain, tide ebbing, downstream sandbanks: Lx1000+Max25
8.32	CA <b>FD</b> , 3m above water	Downstream sandbanks: Lx1000+Max25
8.45	Occasional gulls <b>FU</b>	Cloudy, sunny intervals
9.00	Occasional gulls <b>FU</b>	Downstream sandbanks: Lx1000+Max25
9.15	Occasional gulls <b>FU</b> over bridge	Downstream sandbanks: Lx1000+Max25
9.30	Occasional gulls <b>FU</b> over bridge	Downstream sandbanks: Lx1000+Max25
9.45	Occasional gulls <b>FU</b> over bridge	Sunny, downstream sandbanks: Lx1000+MAx25
10.00	Occasional gulls <b>FU</b> & <b>FD</b> over bridge	Many more gulls arrived from west of Middle Estuary
10.15	Occasional gulls <b>FU</b> & <b>FD</b> over bridge	Sunny, downstream sandbanks CAx6 CGx70+ CUx9 gulls (mixed)x1000+SUx7 Hx3
10.26	CA <b>FD</b>	Downstream sandbanks CAx6 CGx70+ CUx9 gulls (mixed)x1000+SUx7 Hx3
10.30	No bird movements	Sunny, scattered cloud, birds unchanged
11.00	Occasional gulls <b>FU</b> & <b>FD</b> over bridge	Most of gulls <b>FD</b> , 100+gulls and other birds remained
11.15	No bird movements	Sunny, Most of gulls <b>FD</b> , 100+gulls and other birds remained
11.30	No bird movements	Sunny, Most of gulls <b>FD</b> , 100+gulls and other birds remained, BHx200+ feeding on edge of downstream sandbank
11.45	Occasional gulls <b>FU</b> & <b>FD</b> over bridge	BHxsingles feeding on upstream sandbank
11.52	Kestrel hunting over bridge	
12.00	No change	Sunny, few gulls on upstream sandbank, birds unchanged on downstream sandbank
12.02	MA <b>FD</b> over bridge, landed 150m downstream to feed. Occasional gulls <b>FU</b> & <b>FD</b> over bridge	Sunny, few gulls on upstream sandbank, birds unchanged on downstream sandbank
<b>Cont.</b>		

<b>Survey on 02-10-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
12.14	CA <b>FD</b> 50m above water	Sunny, few gulls on upstream sandbank, birds unchanged on downstream sandbank
12.15	No bird movements	BHxseveral feeding on upstream bank 150m from bridge
12.20	GL feeding on bank between bridges	No change
12.30	No change	No change
12.45	No change	No change
12.46	No change	Pair of Kestrels hunting along bridges
12.47	GL <b>FU</b>	No change
13.00	Occasional gulls <b>FU</b> & <b>FD</b> over bridges	No change
13.15	Occasional gulls <b>FU</b> & <b>FD</b> over bridges	No change
13.17	GL feeding on bank between bridges	No change
13.30	Occasional gulls <b>FU</b> & <b>FD</b> over and under bridges	No change on downstream sandbank but no birds on upstream sandbank
13.45	No change	No change
14.00	No change	Occasional light rain
14.15	No change	No change
14.28	CA fishing under road bridge	No change
14.30	No change	No change. No birds flying over adjacent land
14.33	Max3 <b>FU</b> , feeding below bridge	No change
14.45	No change	No change
15.00	No change	No change
15.15	No change	Sunny, no change
15.30	No change	Sunny, no change
15.45	No change	No change
16.00	No change	No change
16.12	Cx2 <b>FU</b>	No change
16.15	No change	No change
16.30	No change	No change
16.45	No change	No change
17.00	No change	No change
17.15	Low nos. gulls <b>FD</b>	No change
17.30	Low nos. gulls <b>FD</b>	No change
17.45	Low nos. gulls <b>FD</b>	No change
18.00	Low nos. gulls <b>FD</b>	No change
18.15	Large nos. gulls <b>FD</b>	No change
18.17	Large nos. gulls <b>FD</b>	No change, tide turned
18.30	Large nos. gulls <b>FD</b>	No change, tide rising
18.45	Large nos. gulls <b>FD</b>	No change, tide rising
19.00	Large nos. gulls <b>FD</b>	No change, tide rising
19.15	Large nos. gulls <b>FD</b>	No change, tide rising, getting dark. Downstream sandbank 30% exposed, all birds <b>FD</b> , upstream sandbank covered.
19.30	Large nos. gulls <b>FD</b>	Almost dark

**Survey on 21-11-2006**

Weather: Dry, cloudy

Temp: 5°C

Wind speed: 10-15 mph W

High water: 11.16 hours

Low water: 6.12 & 18.30 hours

<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
7.00	Too drark to see birds	Cloudy, dry. Ebb tide
7.15	Too dark to see birds	Unchanged
7.30	Occasional gulls <b>FU</b>	Gullsx100s on downstream sandbank
7.45	GullsxLarge nos. <b>FU</b> No other birds near bridges	Sunny, occasional rain. 1000+ gulls on downstream sandbank + CAx5
8.00	GullsxLarge nos. <b>FU</b> No other birds near bridges	Occ. heavy rain. Still ebb tide. 1000+ gulls on downstream sandbank
8.15	GullsxLarge nos. <b>FU</b> No other birds near bridges	1000+ gulls on downstream sandbank + CAx5
8.22	As above+ Ca <b>FD</b> under bridge, 6m above water	1000+ gulls on downstream sandbank
8.30	GullsxLarge nos. <b>FU</b> No other birds near bridges	1000+ gulls on downstream sandbank
8.45	GullsxLarge nos. <b>FU</b> No other birds near bridges	1000+ gulls on downstream sandbank
9.00	GullsxLow nos. <b>FU</b> No other birds near bridges	1000+ gulls on downstream sandbank
9.15	No birds near or passing bridge	1000+ gulls on downstream sandbank, low tide
9.23	No change	Incoming tide reaches bridge
9.30	No birds passing the bridge	Tide rising fast. Gulls fly west from large downstream sandbank
9.45	No wildfowl or waders	Most gulls fd from downstream sandbank, about 500+ remaining on the sandbank
10.00	No wildfowl or waders	Tide flowing fast. Several 100 gulls on downstream sandbank
10.15	Gullsxsingle <b>FU</b> and <b>FD</b>	Cloudy, occasional rain. Only 100+ gulls remaining on downstream sandbank
10.30	Gullsxsingle <b>FU</b> and <b>FD</b>	Heavy wintry showers, tide rising...
10.45	A few gulls on the upstream sandbank	No waders or wildfowl seen
11.00	Gullsxsingle <b>FU</b> and <b>FD</b>	Downstream sandbank completely covered, no birds. Strong winds.
11.15	Gullsxsingle <b>FU</b> and <b>FD</b> , occasionally under bridges	Strong west wind,
11.16	GLx2 moving downstream under bridges	No change
11.30	Gullsxoccasional single <b>FU</b> and <b>FD</b>	Several 100 gulls floating near upstream sandbank
11.45	Gullsxoccasional single <b>FU</b> and <b>FD</b>	High tide
12.00	Gullsxoccasional single <b>FU</b> and <b>FD</b>	High tide. Several 100 gulls swimming near downstream sandbank
12.15	Gullsxoccasional single <b>FU</b> and <b>FD</b>	High tide. Several 100 gulls swimming near downstream sandbank, strong west wind
12.30	No wildfowl or waders	Several 100 gulls on downstream sandbank, tide ebbing, all gulls from Middle Estuary
12.45	No wildfowl or waders	Several 100 gulls on downstream sandbank, tide ebbing, rain, poor visibility
13.00	No wildfowl or waders	Several 100 gulls on downstream sandbank. Visibility poor, may be many more gulls.
<b>Cont.</b>		

<b>Survey on 21-11-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
13.15	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Heavy rain, several 100 gulls on downstream sandbank
13.30	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Heavy rain, several 100 gulls on downstream sandbank
13.45	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Heavy rain, several 100 gulls on downstream sandbank
14.00	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Light rain, several 100 gulls on downstream sandbank
14.15	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Light rain, several 100 gulls on downstream sandbank
14.30	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Light rain, several 100 gulls on downstream sandbank
14.45	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Heavy rain, several 100 gulls on downstream sandbank
15.00	Gullsxoccasional singles <b>FU</b> and <b>FD</b>	Occasional rain, several 100 gulls on downstream sandbank
15.15	Gullsxlow nos. <b>FU</b> and <b>FD</b>	Occasional rain, several 100 gulls on downstream sandbank
15.30	Gullsxlow nos. <b>FU</b> and <b>FD</b>	Light rain, several 100 gulls on downstream sandbank
15.45	Gullsxlow-medium nos. <b>FD</b>	Light rain, several 100 gulls on downstream sandbank
16.00	Gullsxmedium nos. <b>FD</b>	Light rain, several 100 gulls on downstream sandbank, tide still ebbing
16.15	Gullsxlow nos. <b>FD</b>	Light rain, several 100 gulls on downstream sandbank, tide still ebbing
16.30	Gullsxlarge nos. <b>FD</b>	Occasional rain, several 100 gulls on downstream sandbank, low tide, getting dark
16.45	Gullsxlarge nos. <b>FD</b>	Light rain, low tide, almost dark

### Survey on 18-12-2006

Weather: Dry, overcast

Temp: 6°C

Wind speed: 1-3 mph SE

High water: 9.33 hours

Low water: 16.08 hours

<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
7.45	Large nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks, rising tide, poor visibility
8.00	Large nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks
8.15	Large nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks
8.30	Large nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks
8.45	Modest nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks
9.00	Low nos. gulls <b>FU</b> over bridge	No birds on upstream or downstream sandbanks, daylight but poor visibility
9.03	MAxpair feeding downstream of bridge	No change, tide still rising
9.15	Low nos. gulls <b>FU</b> over bridge	No change
<b>Cont.</b>		



<b>Survey on 18-12-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
9.30	Low nos. gulls <b>FU</b> over bridge	No change
9.45	Low nos. gulls <b>FU</b> over bridge	No change
10.00	Low nos. gulls <b>FU</b> over bridge	No change
10.15	Gullxsingles <b>FU &amp; FD</b>	Flock of mixed gulls (250+) on downstream sandbank + CAx4
10.17	Low nos. gulls <b>FU</b> over bridge	No change
10.22	Low nos. gulls <b>FU</b> over bridge	No change, high tide
10.25	CAx1 <b>FD</b> under bridges	No change, tide ebbing
10.26	Low nos. gulls <b>FU</b> over bridge	No change, tide ebbing
10.30	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing
10.45	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing, Hx1 feeding with gulls on downstream sandbank
11.00	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing, Hx1 feeding with gulls on downstream sandbank
11.09	CA <b>FU</b> below bridges	No change, tide ebbing, Hx1 feeding with gulls on downstream sandbank
11.15	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing, mixed flock of gulls in similar nos. +Hx1 still on downstream sandbank
11.22	No change but MAx3 swimming downstream below bridges	No change
11.30	Gullsxvery occasional singles <b>FU</b> and <b>FD</b> . MAx3 feeding on bank	No change, tide ebbing, mixed flock of gulls in similar nos. still on downstream sandbank + Hx2
11.45	Gullsxvery occasional singles <b>FU</b> and <b>FD</b> . MAx3 feeding on bank. No other wildfowl or waders	No change, tide ebbing, mixed flock of gulls in similar nos. still on downstream sandbank + Hx2
11.49	No change but CAx1 <b>FD</b> beneath bridges	No change
11.59	No change but CAx1 <b>FD</b> beneath bridges	No change
12.00	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing, mixed flock of gulls in similar nos. still on downstream sandbank
12.15	Gullxoccasional singles <b>FU</b> and <b>FD</b>	No change, tide ebbing, mixed flock of gulls in low nos. still on downstream sandbank
12.30	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H
12.45	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H
12.53	Gullxoccasional singles <b>FU</b> and <b>FD</b> CAx1 <b>FD</b> below bridge	Mixed flock of 500+ gulls on downstream sandbank + several CA and H
13.00	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H
13.15	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H
13.30	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H + CUx1
13.34	No change but CAx1 <b>FD</b> under bridge	No change
13.45	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H + CUx1
14.00	No change	No change, tide still ebbing
14.15	Gullxoccasional singles <b>FU</b> and <b>FD</b>	Mixed flock of 500+ gulls on downstream sandbank + several CA and H + CUx1
14.30	No change	No change
14.45	No change	No change
15.00	No change	No change, tide still ebbing
15.15	No change	No change, tide still ebbing
<b>Cont.</b>		

<b>Survey on 18-12-2006 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
15.30	Gullslarge nos. <b>FD</b> , some resting on downstream sandbank	Overcast, light failing
15.45	Gullslarge nos. <b>FD</b>	Mixed flock of 500+ gulls, on downstream sandbank. Poor visibility.
16.00	Gullslarge nos. <b>FD</b>	Mixed flock of 500+ gulls, on downstream sandbank. Very poor visibility.
16.15	Gullslarge nos. <b>FD</b>	Unable to see downstream sandbank, getting dark

### Survey on 05-01-2007

Weather: Dry, heavy cloud

Temp: 11 °C

Wind speed: 20 mph W, 30mph gusts

High water: 12.20 hours

Low water: 6.37 and 19.17hours

<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
7.30	Gullsxsmall nos. <b>FU</b>	Very low tide
7.45	Large nos. gulls <b>FU</b>	Too dark to see upstream and downstream sandbanks
8.00	Large nos. gulls <b>FU</b>	Hx1 fishing and low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank
8.15	Large nos. gulls <b>FU</b>	Hx1 fishing and low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank
8.30	Very large nos. gulls <b>FU</b>	Hx1 fishing and low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank
8.45	Large nos. gulls <b>FU</b>	Hx1 fishing and low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank
9.00	Large nos. gulls <b>FU</b> . Hx1 fishing near bridge, then <b>FU</b>	Low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank + Hx2. Strong wind blowing up Estuary, may have reduced gull numbers.
9.13	No change. Hx1 <b>FD</b>	No change
9.15	Large nos. gulls <b>FU</b>	Low nos. gulls feeding on upstream sandbank. Low no. gulls (250+) on downstream sandbank
9.21	CAx1 feeding below bridge	No change
9.28	CAx1 <b>FD</b> below bridges	No change
9.30	Moderate nos. gulls <b>FU</b>	No change.
9.45	Low nos. gulls <b>FU</b> , H and CA feeding near bridges	No change
10.00	Gullslow nos. <b>FU</b> and <b>FD</b>	No change
10.15	Gullsxocc. singles <b>FU</b> and <b>FD</b>	No change. No wildfowl or waders seen or heard. Tide very low
10.30	Gullsxocc. singles <b>FU</b> and <b>FD</b>	No change. No wildfowl or waders seen or heard. Tide very low
10.31	No change	No change. Tide rising.
10.32	No change. Hx1 and CAx1 feeding near bridge <b>FU</b>	No change, tide rising
10.38	All birds on upstream sandbank <b>FU</b>	All birds on downstream sandbank moving to higher ground on sandbank as tide rises
<b>Cont.</b>		

<b>Survey on 05-01-2007 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
	No change	No wildfowl or waders seen or heard. Tide very low
10.45	All birds on upstream sandbank dispersed in Upper Estuary	All birds on downstream sandbank moved to higher ground on sandbank or swimming and feeding on incoming tide
10.47	No change	Tide rising rapidly
11.00	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Many gulls downstream dispersed to Middle or Outer Estuary
11.15	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Mixed gulls (200 approx) + CAx1 on downstream sandbank
11.30	No bird movements past the bridge	Mixed gulls (150 approx) on downstream sandbank.
11.45	No change	No change
11.48	No change	No change
12.00	No change	Rain, no change, tide rising
12.05	No change	No change, tide rising
12.15	Gullsxocc. singles <b>FU</b> and <b>FD</b>	No change
12.17	Gullsxocc. singles <b>FU</b> and <b>FD</b> CAx2 <b>FU</b> below bridges	No change
12.20	Gullsxocc. singles <b>FU</b> and <b>FD</b>	All gulls and other birds on downstream sandbank flown to Middle/Outer Estuary. Tide rising
12.30	No birds seen	No birds seen
12.45	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Rain ceased. Almost high tide
13.00	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Almost high tide
13.02	Gullsxocc. singles <b>FU</b> and <b>FD</b>	High tide
13.03	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Tide beginning to ebb
13.15	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Tide ebbing
13.30	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Several 100 gulls flying about on downstream sandbank
13.33	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Several gulls and Hx1 landed on downstream sandbank
13.45	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Several 100 gulls on downstream sandbank
13.51	No change but CAx1 <b>FD</b> below bridge	No change, tide ebbing fast
14.00	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Gulls x600+ on downstream sandbank. Upstream sandbank still covered
14.15	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Gullsx1000+ on downstream sandbank + Hx3 and CAx5, all feeding
14.30	Gullsxocc. singles <b>FU</b> and <b>FD</b>	Gullsx1000+ on downstream sandbank
14.33	No change but CAx2 <b>FU</b>	No change
14.45	Small nos. gulls <b>FD</b>	No change
15.00	Low nos. gulls <b>FD</b>	No change
15.15	Modest nos. gulls <b>FD</b>	Gullsx1500+ on downstream sandbank + Hx3 and CAx6
15.30	Modest nos. gulls <b>FD</b>	Gullsx2000+ on downstream sandbank
15.45	Large nos. gulls <b>FD</b>	Gullsx1000+ on downstream sandbank
16.00	Large nos. gulls <b>FD</b>	No change
16.15	Large nos. gulls <b>FD</b>	No change, low tide, getting dark

**Survey on 014-02-2007**

Weather: Dry, overcast

Temp: 7°C

Wind speed: 10 mph W

High water: 8.38 and 21.15 hours

Low water: 15.22 hours

<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
7.00	Low nos. gulls <b>FU</b>	Low tide
7.15	Large nos. gulls <b>FU</b>	Tide starting to rise
7.30	Large nos. gulls <b>FU</b>	Tide rising
7.39	Large nos. gulls <b>FU</b> and <b>CGx2 FU</b> below bridges	Tide rising
7.45	Very large nos. gulls <b>FU</b>	Mixed gulls (3000+) on downstream sandbank. Upstream sandbank covered by tide
7.47	No change but <b>CAX2 FD</b> beneath bridges	No change
8.00	Very large nos. gulls <b>FU</b> , from downstream sandbank and Middle/Outer Estuary	Mixed gulls (1500+) on downstream sandbank
8.15	Large nos. gulls <b>FU</b>	Several 100 mixed gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX6</b> , Rising tide
8.30	Large nos. gulls <b>FU</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b>
8.45	Modest nos. gulls <b>FU</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b>
9.00	Modest nos. gulls <b>FU</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b>
9.15	Low nos. gulls <b>FU</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b> , high tide
9.30	Gullsoccasional singles <b>FU</b> and <b>FD</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b> , tide starting to ebb
9.45	Gullsoccasional singles <b>FU</b> and <b>FD</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b> , tide ebbing
10.00	Gullsoccasional singles <b>FU</b> and <b>FD</b>	200+ gulls on downstream sandbank + <b>SUx2</b> , <b>CUx2</b> and <b>CAX4</b> , tide ebbing
10.15	Gullsoccasional singles <b>FU</b> and <b>FD</b>	600+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
10.30	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
10.45	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
10.52	Peregrine Falcon hunting pigeons near both bridges	No change, upstream sandbank covered by tide
11.00	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
11.15	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
11.30	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
11.45	Gullsoccasional singles <b>FU</b> and <b>FD</b> , <b>CAX1</b> feeding under viaduct	1000+ gulls on downstream sandbank + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
12.00	No change	No change
12.15	No change	No change
12.30	Gullsoccasional singles <b>FU</b> and <b>FD</b>	1000+ gulls on downstream sandbank but scattered + <b>SUx4</b> , <b>CUx2</b> and <b>CAX6</b> , tide ebbing
12.45	No change, no movements of wildfowl and waders between Upper and Middle estuaries	No change
<b>Cont.</b>		

<b>Survey on 014-02-2007 continued</b>		
<b>Time</b>	<b>Bird presence and movements</b>	<b>Other observations</b>
13.00	No change	No change, upstream sandbank exposed but no birds present
13.15	No change	No change, upstream sandbank exposed and 10 gulls present
13.30	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
13.45	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
14.00	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
14.15	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
14.30	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
14.45	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
15.00	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
15.15	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
15.30	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
15.45	No change	No change, upstream sandbank exposed and 10 gulls present, low tide
16.00	Low nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, low tide
16.15	Low nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, low tide
16.30	Modest nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, low tide
16.45	Modest nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, low tide
17.00	Large nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, low tide
17.15	Large nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, sunset, low tide
17.30	Large nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, sunset, low tide
17.45	Large nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, sunset, low tide
18.00	Large nos. gulls <b>FD</b>	No change, upstream sandbank exposed and 10 gulls present, sunset, low tide