



Humber Estuary Visitor Survey 2023

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Summary

This report has been commissioned by JBA Consulting on behalf of North Lincolnshire Council and presents the results of a visitor survey on the south bank of the Humber Estuary conducted in January/February 2023.

Surveys involved face-to-face interviews with a random sample of people at five different locations along the estuary and, at the same locations, tally counts of the number of people seen passing the surveyor. Two days (16 hours in total) were spent at each survey location.

Key results and figures from the survey

Tally counts

- In total, 469 groups were noted entering, leaving or passing through at the survey points.
- These groups contained a total of 786 people (of which 40 were minors) and there were 302 dogs.
- From these totals the mean group size was 1.7 people (of which 0.1 were minors) and 0.6 dogs.
- There was 1 dog for every 2.6 people.
- The busiest location was survey point 4 – Waters’ Edge and the quietest location was survey point 5 – East Halton Skitter.

Interviews

- A total of 186 interviews were conducted.
- The majority of interviewees (97%) were on a day trip or short visit from home. The other 3% were staying with friends or family.
- The most common activities were dog walking (42%), walking (40%) and bird/wildlife watching (10%).
- Half of the interviewees (50%) visit the location where they were interviewed at least once a week, including 16% who visit at least once a day. Interviewees at Whitton Foreshore were particularly frequent, with 45% of them visiting at least once a day.
- Visit durations were varied, with the most common responses ‘30 minutes to 1 hour’ and ‘1 to 2 hours’ (each given by 37% of interviewees).
- Approximately two thirds of interviewees (65%) visit all year round.
- Overall, car/van was the most common mode of transport used by interviewees (69%) although this varied by survey location, and 68% of interviewees at Whitton Foreshore had arrived on foot.
- The median route length of interviewees during their visit was 3.70 km. Amongst dog walkers the median route length was 3.00 km.

- Previous knowledge of the area was the most common influence on interviewees' routes (cited by 52% of interviewees).
- The most common reasons for choosing the location that they were visiting that day were that it was close to home (30%), out of habit (23%) and for the scenery/views (20%).
- 9% of interviewees said that it was the only location that they visit for their activity.
- When asked to name up to three other sites that they visit, the most common responses were Far Ings (15% of interviewees), Alkborough (7%) and Barton Haven (7%).
- 31% of interviewees were aware that the location was important for breeding birds and 15% were aware that it was important for wintering/passage birds.
- There was less awareness amongst interviewees of the environmental designations of the area with 12% identifying that it is a SSSI and 11% that it is a nature reserve.
- The most common suggestions for how the location that they were visiting could be improved related to footpaths (16% of interviewees), access tracks (9%) and litter bins (6%).
- Home postcodes were obtained from 98% of the interviewees. 72% of interviewees were from North Lincolnshire and 10% were from East Riding. The median straight-line distance from their postcode to the location where they were interviewed was 6.3 km.
- The 75th percentile distance from home postcode to survey point for those interviewees who were visiting from home was 14.7 km and this could be used to define a zone of influence for North Lincolnshire.

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Survey work was undertaken by Fran Labrom, Kim Leyland and Philip Precey. Data were entered by Emily Rush.

Cover image: Humber Bridge and seawall © Footprint Ecology

1. Introduction

Overview

- 1.1 This report has been commissioned by JBA Consulting on behalf of North Lincolnshire Council and presents the results of a visitor survey on the south bank of the Humber Estuary conducted in January/February 2023. The purpose of the visitor survey is to inform the North Lincolnshire Local Plan Habitats Regulations Assessment (HRA) and to understand the impacts of recreation arising from new housing development upon European sites within the Humber Estuary. It provides an update to a previous survey carried out in winter 2011/12 (Fearnley et al., 2012).

Humber Estuary

- 1.2 The Humber Estuary is a large estuary with the second-highest tidal range in Britain. It is designated as a Special Area of Conservation (SAC) for its range of habitats, which includes mudflats, sandflats, saltmarsh, reedbeds and sand dunes, as well as its populations of Sea Lamprey *Petromyzon marinus*, River Lamprey *Lampetra fluviatilis* and Grey Seal *Halichoerus grypus*. It is classified as a Special Protection Area (SPA) for the internationally important bird populations that it supports. These include breeding Avocet *Recurvirostra avosetta*, Bittern *Botaurus stellaris*, Little Tern *Sterna albifrons* and Marsh Harrier *Circus aeruginosus*, and a number of wintering and passage waterbirds. In addition, as a wetland of international importance it is listed as a Ramsar site.

Impacts and importance of access

- 1.3 A challenging issue for UK nature conservation is how to respond to increasing demand for access without compromising the integrity of protected wildlife sites. Areas that are important for nature conservation are often important for a range of other services, including the provision of space for recreation for an increasing population. Such recreation space can be used for a wide variety of activities, ranging from daily dog walks to competitive adventure and endurance sports.
- 1.4 Visits to the natural environment have shown a significant increase in England as a result of the increase in population and a trend to visit the countryside more (O'Neill, 2019). The Covid-19 pandemic has further had a

marked effect on how people use local greenspaces and many locations across the UK have seen a marked increase in recreation use during the pandemic (Burnett et al., 2021).

- 1.5 There is a strong body of evidence showing how increasing levels of access can have negative impacts on wildlife. Issues are varied and include disturbance, increased fire risk, contamination and damage (for general reviews see: Liley et al., 2010; Lowen et al., 2008; Ross et al., 2014; Underhill-Day, 2005). The issues are not, however, straightforward. It is now increasingly recognised that access to the countryside is crucial to the long term success of nature conservation projects, for example through enforcing pro-environmental behaviours and a greater respect for the world around us (Richardson et al., 2016). Access also brings wider benefits to society that include benefits to mental/physical health (Keniger et al., 2013; Lee and Maheswaran, 2011; Pretty et al., 2005) and economic benefits (ICF GHK, 2013; ICRT, 2011; Keniger et al., 2013; The Land Trust, 2018). Nature conservation bodies are trying to encourage people to spend more time outside and government policy is also promoting countryside access in general (e.g. through enhancing coastal access).

Legislative context

- 1.6 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. Importantly, the most recent amendments (the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019¹) take account of the UK's departure from the EU.
- 1.7 The Regulations provide strict protection to European sites and this extends to local plans. Regulation 105 *et seq* addresses the assessment of local plans and there is also Government Guidance on the interpretation and application of the Regulations which includes local plans². Local planning

¹ The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

² Habitats regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site> (accessed 4 March 2021)

authorities, as public bodies, are given specific duties as 'competent authorities'. A competent authority should only approve a project or give effect to a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) (or exceptionally, if there is overriding public interest and no alternatives).

2. Methods

Survey locations

- 2.1 Surveys took place at five survey locations along the south bank of the Humber which were selected to include some of the main parking areas, pedestrian access points and also to ensure a good geographical spread. Survey locations are shown in Map 1 and summarised in Table 1.
- 2.2 Survey point 3 was originally intended to be located at South Ferriby, north of the sluice (grid reference SE97622118), as suggested by the client. However, when the surveyor arrived on 28th January this location was found to be inaccessible and so Chowder Ness Viewpoint was subsequently identified as an alternative location.

Table 1: Details of survey locations.

Map ref	Name	Grid reference	Description
1	Alkborough Flats	SE87852215	Footpath junction approximately 60m north west of Alkborough Flats car park.
2	Whitton Foreshore	SE90442465	On raised footpath just east of gateway.
3	Chowder Ness Viewpoint	TA00482304	Parking area off Far Ings Road, west of Target Pond and close to Far Ings National Nature Reserve (NNR).
4	Waters' Edge	TA03032345	On the riverside path, north east of the visitor centre.
5	East Halton Skitter	TA14482286	Parking area at East Halton Skitter, just south of a bridge.

Survey logistics

- 2.3 Surveyors undertook visitor counts and interviews within standard two-hour periods, standardised across survey points. Face-to-face interviews were conducted with a random selection of visitors, with the surveyor selecting the next person they saw after completing the previous interview, with only one person interviewed per group or party.
- 2.4 Alongside the interview data, surveyors maintained a tally of all people passing, recording the number of groups (of any size, including lone individuals), people (total headcount), minors (under 18s), dogs and cyclists. These counts allow a comparison across survey points in terms of visitor

volume/footfall, and indicate the proportion of visitors that were interviewed at each location.

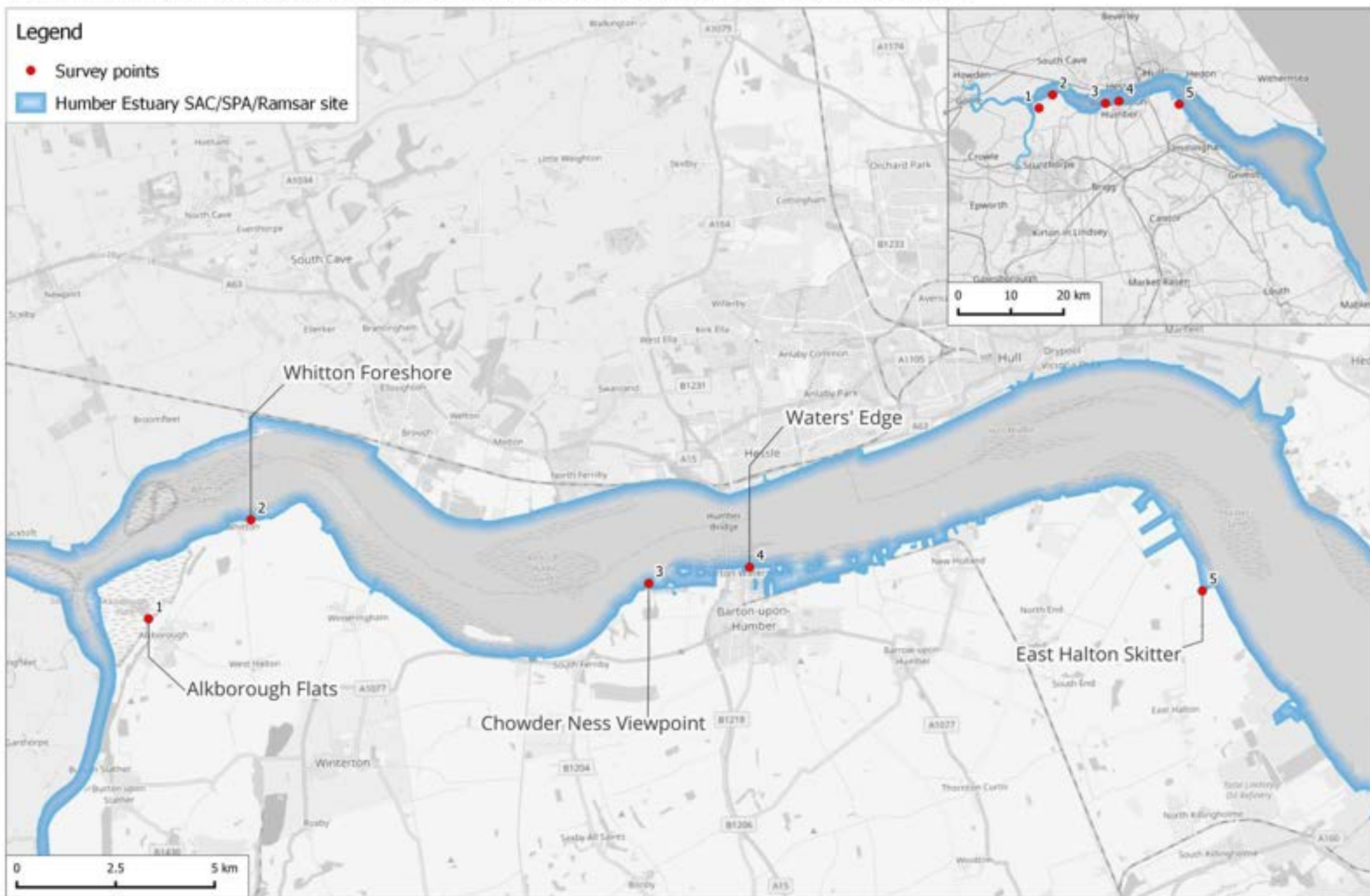
Questionnaire design

- 2.5 The questionnaire (Appendix 1) was designed using Snap Surveys software and was conducted using tablet computers running the Snap Mobile Anywhere app. The route that the interviewee had taken on site (or was planning to take) was drawn by the surveyor onto a paper map, using a unique reference number to match it to the corresponding questionnaire data and these routes were subsequently digitised using GIS.

Survey timings

- 2.6 Each survey point was surveyed for 16 hours over 2 days, with 8 hours on a weekend day and 8 hours on a weekday. Surveys were split into 2-hour periods to provide breaks for the surveyors and comparable survey windows across all locations. Survey times comprised: 07:00-09:00, 09:30-11:30, 12:30-14:30 and 15:00-17:00.
- 2.7 Surveys took place between 27th January and 7th February 2023. This time of year was chosen to coincide with when the bird interest is present on site.
- 2.8 Every effort was made to avoid severe weather conditions. The weather during the surveys was mostly cold and sometimes cloudy but without any rain.

Map 1: Location of survey points. Inset map shows the full extent of the Humber Estuary SAC/SPA/Ramsar site.



3. Results: Tally counts

- 3.1 Tally data are summarised in Table 2. In total, 469 groups were noted entering, leaving or passing through at the survey point. These groups contained a total of 786 people (of which 40 were minors) and 302 dogs. From these totals the mean group size was 1.7 people (of which 0.1 were minors) and 0.6 dogs. There was 1 dog for every 2.6 people.
- 3.2 Survey point 4 (Waters' Edge) was the busiest location from the tally data, with 42% of the groups, 42% of the people, 42% of the dogs and 54% of the minors logged entering all sites recorded entering at this location. However, nearly half of all of the cyclists entering (48%) were recorded at survey point 3 (Chowder Ness Viewpoint).
- 3.3 The number of people entering at each location is shown in Figure 1. It can be seen that at all survey locations except for survey point 4 (Waters' Edge), more people were recorded entering at the weekend. At three survey points, more than double the number of people were recorded entering at the weekend, compared to the weekday. The number of dogs entering at each location was greater on a weekend at all survey points.
- 3.4 The number of groups recorded entering by time period and type of day are shown in Figure 2, with the colours reflecting the different survey locations. It can be seen that the highest number of groups were recorded entering on both weekdays and weekends between the hours of 09:30-11:30. During most survey periods, more groups were recorded on a weekend than a weekday, except for 07:00-09:00. The number of groups recorded entering between the hours of 07:00-09:00 at survey point 4 (Waters' Edge) was 4 times greater on the weekday compared to the weekend day.

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Table 2: Summary of tally data over the two days of surveying at each location. Entering are those starting their visit at the survey point (e.g. parking at given car park); those leaving are those exiting the site at the given location (e.g. returning to cars) and passing through are those that pass the surveyor having not started at that location, e.g. a cyclist that passes through a car park. Note that a passing tally was not required at all survey points. Red font indicates the highest value in each column.

Survey point	Entering					Leaving					Passing				
	Groups	People	Dogs	Minors	Bikes	Groups	People	Dogs	Minors	Bikes	Groups	People	Dogs	Minors	Bikes
1 - Alkborough Flats	28	45	20	1	2	27	44	18	0	1	24	39	33	1	1
2 - Whitton Foreshore	24	38	20	2	1	16	26	9	2	1	-	-	-	-	-
3 - Chowder Ness Viewpoint	78	141	35	10	13	66	118	26	3	8	5	11	4	1	0
4 - Waters' Edge	99	166	62	15	10	83	129	47	3	3	-	-	-	-	-
5 - East Halton Skitter	7	8	9	0	1	7	12	12	2	3	5	9	7	0	1
Total	236	398	146	28	27	199	329	112	10	16	34	59	44	2	2

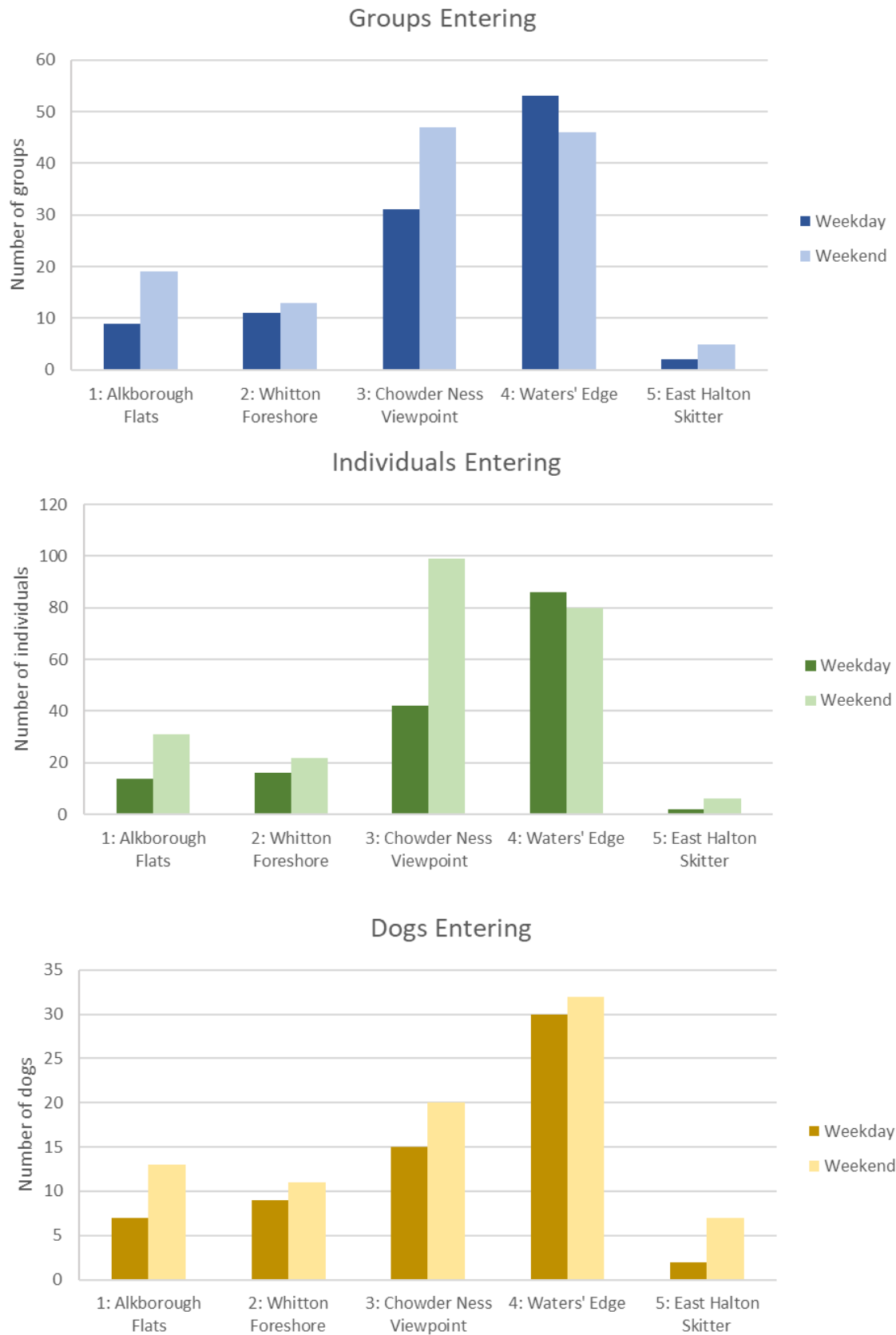


Figure 1: Groups, people and dogs entering each site on weekdays compared to weekends.

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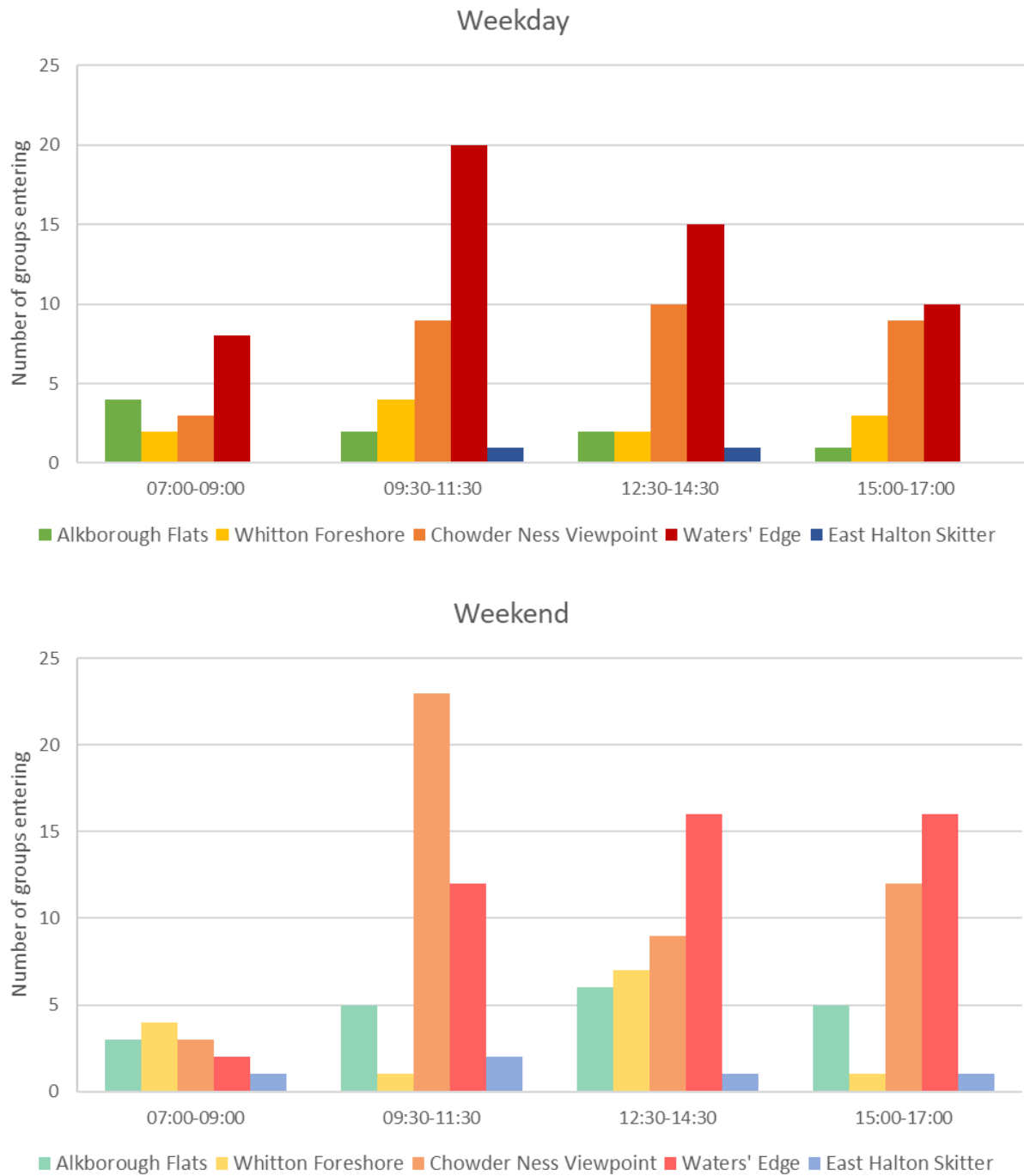


Figure 2: Number of groups entering by time period, type of day and survey point.

4. Results: Visitor interviews

Overview

- 4.1 A total of 186 interviews were conducted, with 90 (48%) conducted on weekdays and 96 (52%) conducted at weekends (Table 3). The median interview duration was 5.5 minutes.
- 4.2 In addition to the 186 people who were interviewed, another 52 people were approached but declined to take part, 1 person could not take part due to language issues, and 25 were approached but had already been interviewed, so were not re-interviewed (Table 3). Reasons for not wishing to take part in the survey were largely due to either not having time or just not being interested.

Table 3: Number of people approached for interview by survey location.

Survey point	Weekday interviews	Weekend interviews	Total interviews	Declined to take part	Already interviewed	Language issues
1 - Alkborough Flats	19	16	35	4	10	0
2 - Whitton Foreshore	12	10	22	1	5	0
3 - Chowder Ness Viewpoint	22	31	53	18	2	0
4 - Waters' Edge	34	31	65	26	7	1
5 - East Halton Skitter	3	8	11	3	1	0
Total	90	96	186	52	25	1

- 4.3 Most interviewees were either on their own (82 interviewees, 44%) or with one other person (88 interviewees, 47%). The remaining 16 interviewees (9%) were in groups of between 3 and 9 people (including the interviewee). The mean group size³ in the interviewed groups was 1.7 people including 0.1 minors.
- 4.4 Almost half of the interviewees (87, 47%) had one or more dogs with them, resulting in a total of 127 dogs. 38 of these dogs (30%) were off lead at the time of the interview.

³ By group size we mean the number of people in the group, including the interviewee. While only one interview was conducted per group or party, the number of people in the group as a whole was logged. If the interviewee was on their own, the group size was recorded as 1.

Visit type (Q1)

4.5 The majority (180 interviewees, 97%) were on a day trip or short visit and had travelled directly from home that day. The other 6 interviewees (3%) were staying with friends or family in the area. None of the interviewees were on holiday.

Activity (Q2-3)

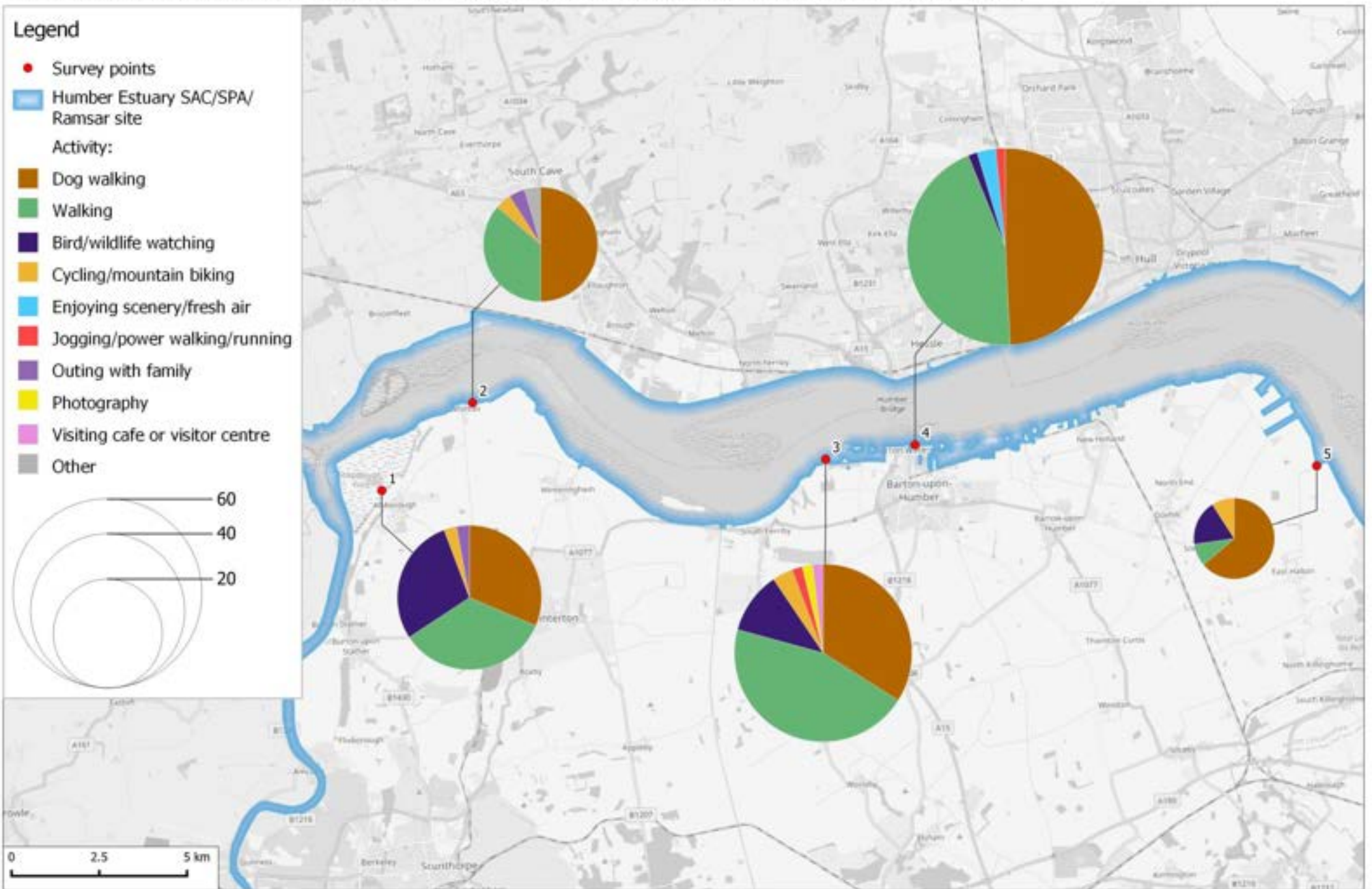
4.6 The most frequently given main activity was dog walking (79 interviewees, 42%), followed by walking (74 interviewees, 40%) and bird/wildlife watching (19 interviewees, 10%). The main activities of interviewees are summarised in Figure 3.



Figure 3: Main activity of interviewees (Q2).

4.7 Map 2 summarises the main activity of interviewees at each survey point. Dog walking was the most common main activity of interviewees at survey points 2 (Whitton Foreshore), 4 (Waters' Edge) and 5 (East Halton Skitter), whereas walking was the most common main activity at survey points 1 (Alkborough Flats) and 3 (Chowder Ness Viewpoint). The highest proportion of bird/wildlife watchers was at survey point 1 (Alkborough Flats).

Map 2: Main activity of interviewees. The size of pie charts reflects the total number of interviewees at each location.



4.8 Interviewees were also asked about any additional activities they were undertaking during their visit, and these secondary activities are summarised in Figure 4. A little under half (83 interviewees, 45%) named one or more secondary activities, with bird/wildlife watching the most common (26 interviewees, giving a total of 24% who named it as either a main or secondary activity).

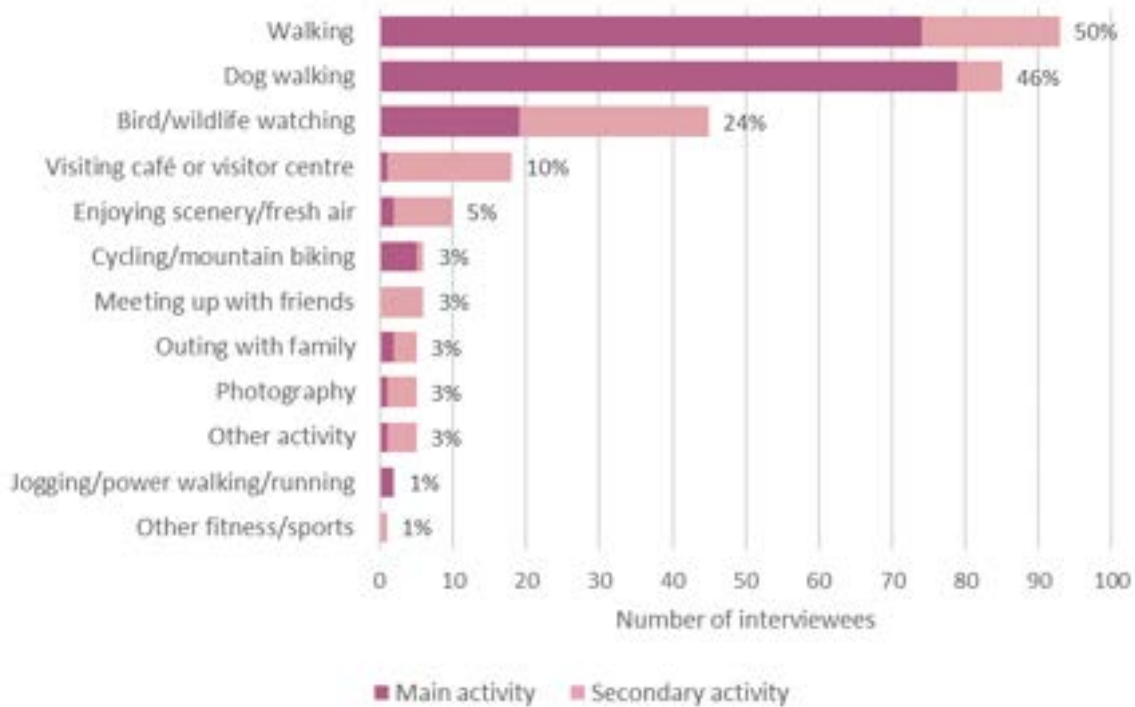


Figure 4: Number of interviewees undertaking each activity type. Labels indicate the total percentage of interviewees with each activity type, regardless of whether it was their ‘main’ activity or a ‘secondary’ activity.

Temporal visit patterns (Q4-6)

Visit frequency (Q4)

4.9 Visit frequencies are summarised in Figure 5. The most commonly cited response was ‘1 to 3 times per week’ (the frequency for 44 interviewees, 24%). 29 interviewees (16%) stated they had visited daily or more than once a day over the past year. In total 93 interviewees (50%) visited at least weekly. Dog walkers had tended to visit the most frequently, with 29% of them visiting daily or more than once a day. Survey point 2 (Whitton Foreshore) had the highest proportion of interviewees visiting daily or more than once a day (45%).

- 4.10 Overall, 15% of interviewees were on their first visit to the survey location (this includes those who were on their first visit within the past year). Amongst those whose main activity was walking, this figure was 23%.
- 4.11 By assigning an estimated annual number of visits to each category, we estimate that interviewees had visited the interview location on average around 121 times in the past year⁴.

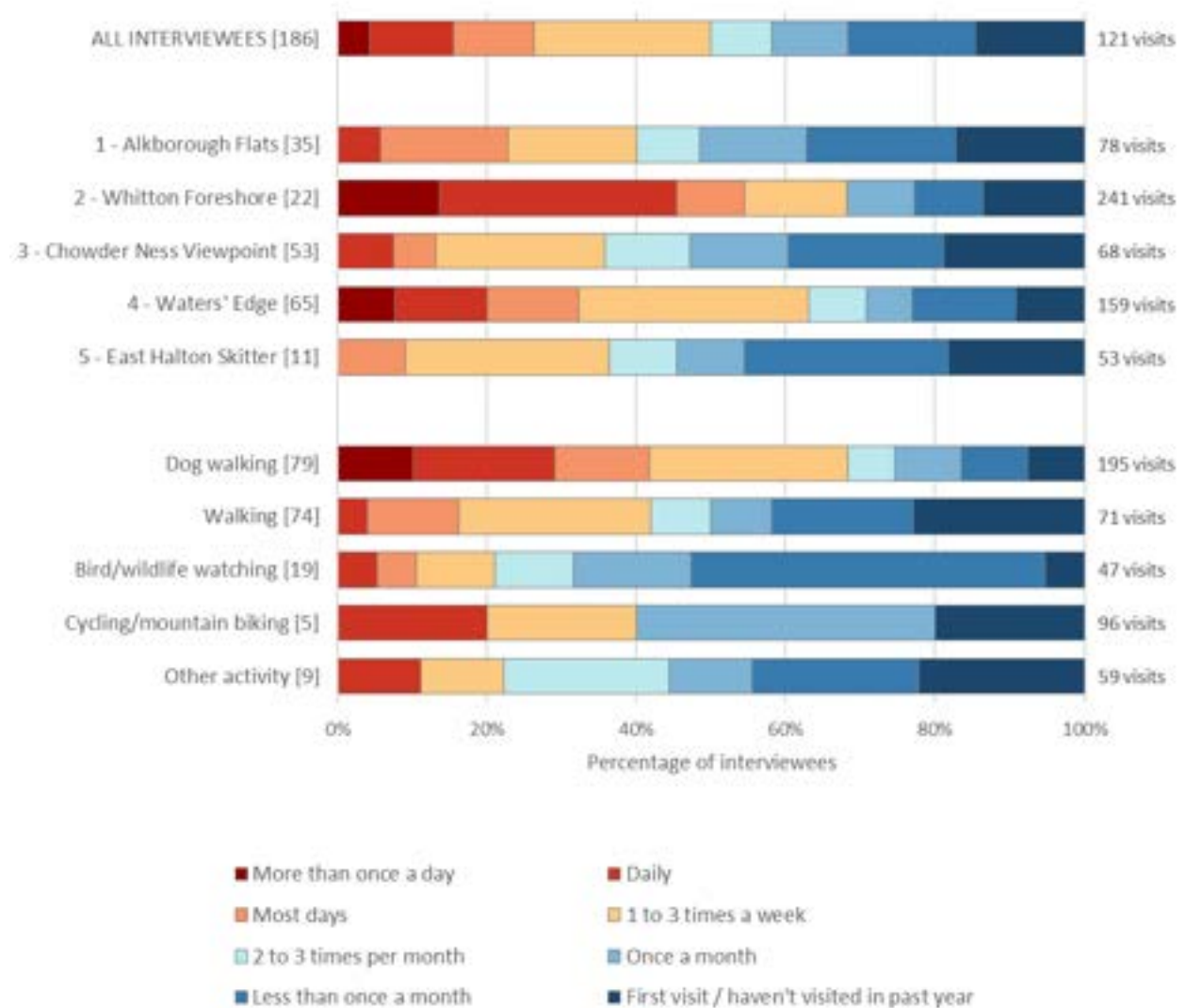


Figure 5: Visit frequency of interviewees over the past year (Q4) by survey location and main activity. Numbers in brackets refer to the sample size and the labels to the right indicate the typical number of annual visits made by that group (calculated using the same methodology described in paragraph 4.11).

⁴ “More than once a day” = 700 visits; “Daily” = 350 visits; “Most days” = 200 visits; “1 to 3 times a week” = 110 visits; “2 to 3 times per month” = 27.5 visits; “Once a month” = 10.5 visits; “Less than once a month” = 3 visits and “First visit” = 1. Typical visit frequency is then the average based on the number of interviewees that gave each of the above categories.

Visit duration (Q5)

- 4.12 Many of the interviewees were making short visits, with 82 of them (44%) staying for less than an hour. A further 69 interviewees (37%) were spending 1 to 2 hours at the interview location and the remaining 35 interviewees (19%) were visiting for over 2 hours (Figure 6).
- 4.13 By assigning a single value to each duration category, we estimate that the typical visit duration was around 1.5 hours⁵.

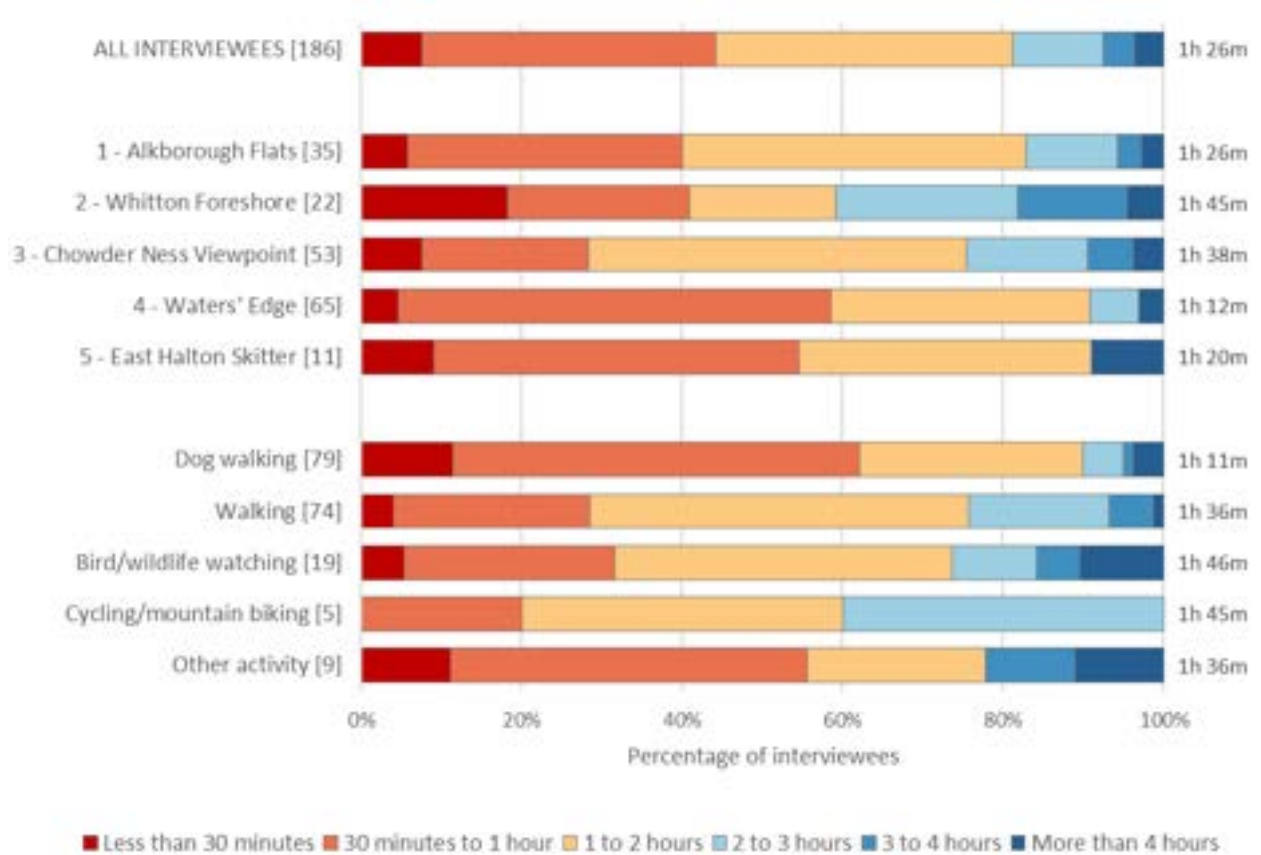


Figure 6: Visit duration of interviewees (Q5) by survey location and main activity. Numbers in brackets refer to the sample size and the labels to the right indicate the typical visit duration for that group (calculated using the same methodology described in paragraph 4.13).

⁵ "Less than 30 minutes" = 20 mins; "30 minutes to 1 hour" = 45 mins; "1 to 2 hours" = 90 mins; "2 to 3 hours" = 150 mins and "More than 3 hours" = 240 mins. Typical visit duration is then the average based on the number of interviewees that gave each of the above categories.

Time of year (Q6)

4.14 Almost two thirds of interviewees (121 interviewees, 65%) stated they tended to visit equally all year (Table 4), and this was particularly the case for dog walkers (63 interviewees, 80% visiting equally all year). For those interviewees that did tend to visit at a particular time of year, the summer was the most common response (19 interviewees, 10%).

Table 4: Number (%) of interviewees and the time of year that they tend to visit (Q6). Note that multiple responses were possible for this question so percentages in each row will not total 100.

Main activity	Spring (Mar-May)	Summer (Jun-Aug)	Autumn (Sep-Nov)	Winter (Dec-Feb)	Equally all year	Don't know/ first visit	Total interviewees
Dog walking	0 (0%)	5 (6%)	1 (1%)	3 (4%)	63 (80%)	8 (10%)	79 (100%)
Walking	4 (5%)	13 (18%)	1 (1%)	3 (4%)	38 (51%)	19 (26%)	74 (100%)
Bird/wildlife watching	3 (16%)	1 (5%)	2 (11%)	3 (16%)	10 (53%)	4 (21%)	19 (100%)
Cycling/ mountain biking	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (80%)	1 (20%)	5 (100%)
Other activity	0 (0%)	0 (0%)	0 (0%)	1 (11%)	6 (67%)	2 (22%)	9 (100%)
Total	7 (4%)	19 (10%)	4 (2%)	10 (5%)	121 (65%)	34 (18%)	186 (100%)

Mode of transport (Q7)

4.15 Overall, the majority of interviewees (129 interviewees, 69%) had travelled to the interview location by car or van. Other modes of transport were on foot (52 interviewees, 28%) and by bicycle (5 interviewees, 3%). However, there were differences between survey locations and at survey point 2 (Whitton Foreshore) the most common mode of transport was by foot (15 interviewees, 68%).

4.16 The mean group size for those who had arrived by car was 1.8 people.

Table 5: Number (%) of interviewees by mode of transport and survey location (Q7).

Survey point	Car/van	On foot	Bicycle	Total
1 - Alkborough Flats	29 (83%)	5 (14%)	1 (3%)	35 (100%)
2 - Whitton Foreshore	6 (27%)	15 (68%)	1 (5%)	22 (100%)
3 - Chowder Ness Viewpoint	40 (75%)	11 (21%)	2 (4%)	53 (100%)
4 - Waters' Edge	45 (69%)	20 (31%)	0 (0%)	65 (100%)
5 - East Halton Skitter	9 (82%)	1 (9%)	1 (9%)	11 (100%)
Total	129 (69%)	52 (28%)	5 (3%)	186 (100%)

4.17 Car/van was the most common mode of transport for interviewees who were dog walking (68%), walking (70%) and bird/wildlife watching (95%). However, all of the interviewees who were cycling/mountain biking had arrived by bicycle.

Routes taken on site (Q8-10)

4.18 All of the 186 interviewees were able to describe the route that they had taken (or planned to take) during their visit to the surveyor. These routes are shown in Map 3 and as a heatmap in Map 4. The areas with the highest concentration of visitor routes were the seawall along the northern perimeter of Far Ings and the footpath to the north of the Waters' Edge Country Park visitor centre.

4.19 Maps showing separately the routes of interviewees who were dog walking, walking and bird/wildlife watching are in Appendix 2.

4.20 Across all interviewees the median route length was 3.70 km. Route length data are summarised by main activity type in Figure 7 and by survey location in Figure 8. While the longest individual route was taken by a walker, cyclists as a group tended to have the longest routes, with a median length of 18.97 km. For dog walkers the median route length was 3.00 km. There was little difference between survey locations.

4.21 On average, interviewees were within the SAC for less than a third (29%) of their total route (a median distance of 1.08 km out of the median total route length of 3.70 km).

4.22 Most interviewees (94 interviewees, 51%) stated that the route they had followed or intended to follow that day was similar to their usual route. 18 interviewees (10%) stated that the route was much shorter than normal while the route was much longer than normal for 3 interviewees (2%). The

remaining interviewees were unsure, had no typical visit or were visiting for the first time.

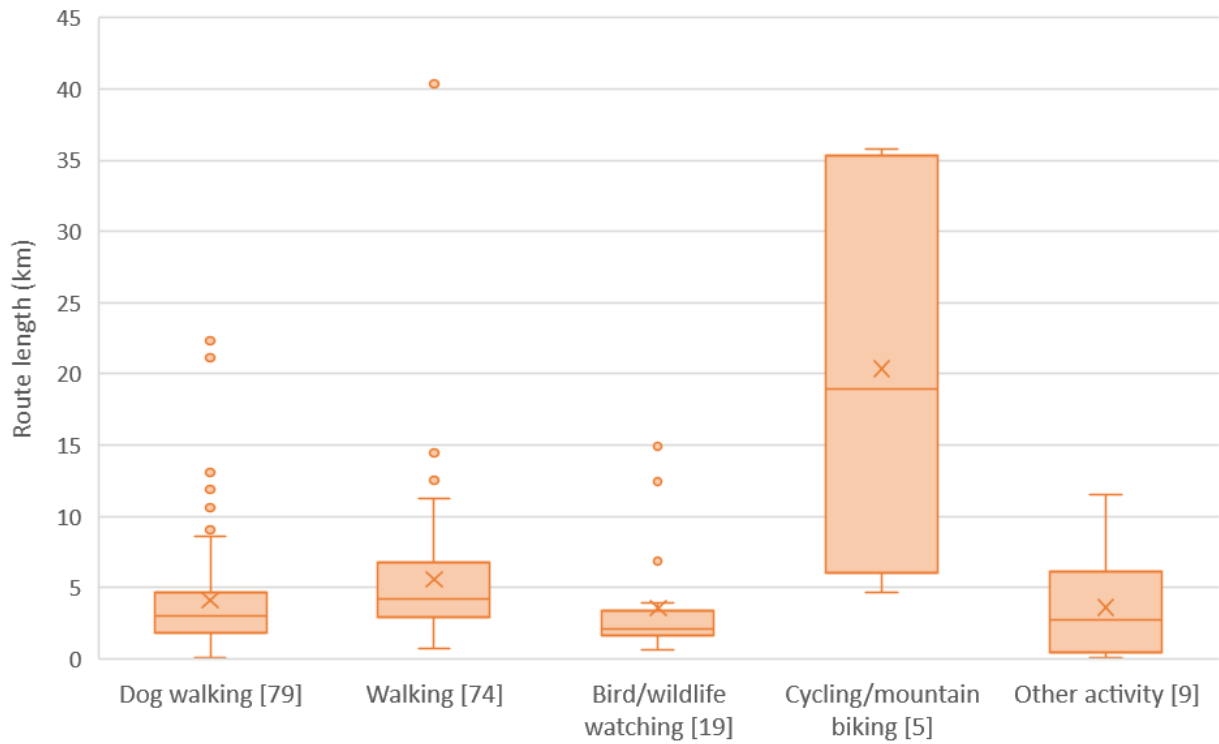


Figure 7: Route lengths by main activity. Horizontal lines show the median, crosses indicate the mean, boxes show the interquartile range, whiskers are the maximum and minimum values and dots are outliers. Values in square brackets indicate the number of interviewees.

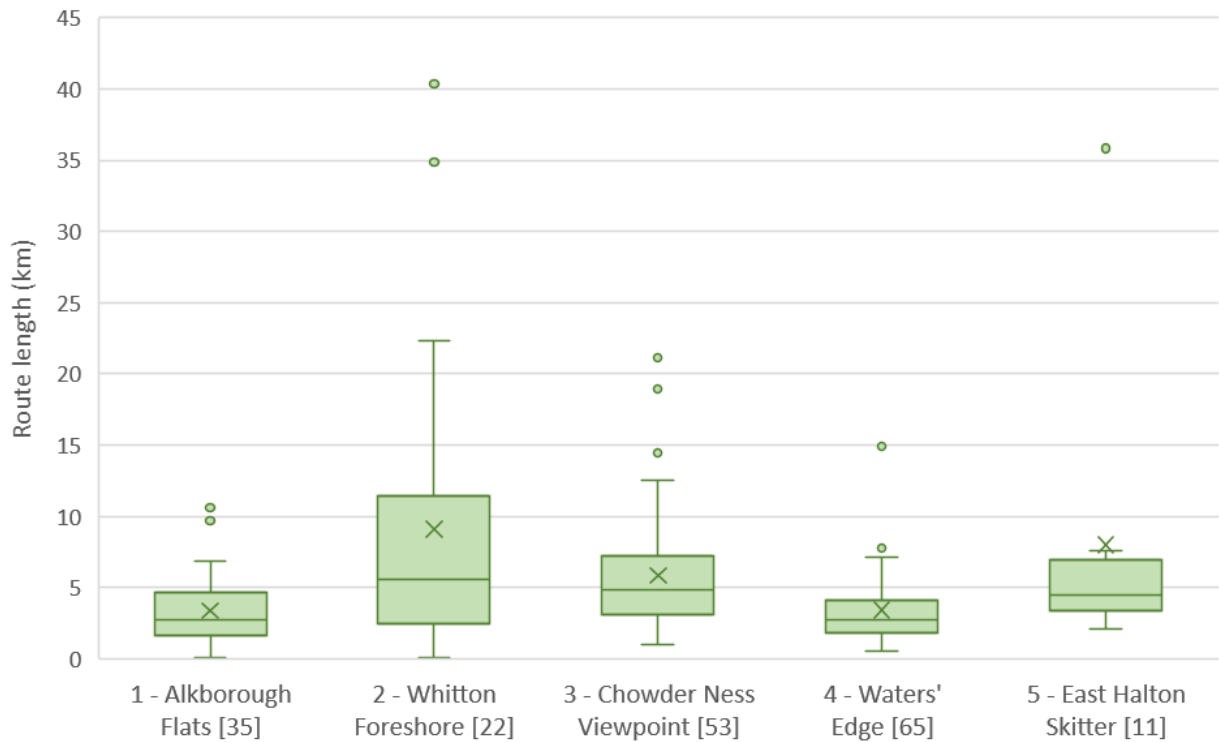


Figure 8: Route lengths by survey location. Horizontal lines show the median, crosses indicate the mean, boxes show the interquartile range, whiskers are the maximum and minimum values and dots are outliers. Values in square brackets indicate the number of interviewees.

4.23 Factors influencing choice of route are summarised in Figure 9. The most common factor (by some margin) was the interviewee’s previous knowledge of the area (e.g. following their usual route), which was cited by 96 interviewees, 52%). Other commonly cited factors related to time (33 interviewees, 18%) and the activity undertaken (18 interviewees, 10%).

4.24 The ‘other’ factors included avoiding livestock, exploring a new area, avoiding looking into the sun and following directions in a guidebook.

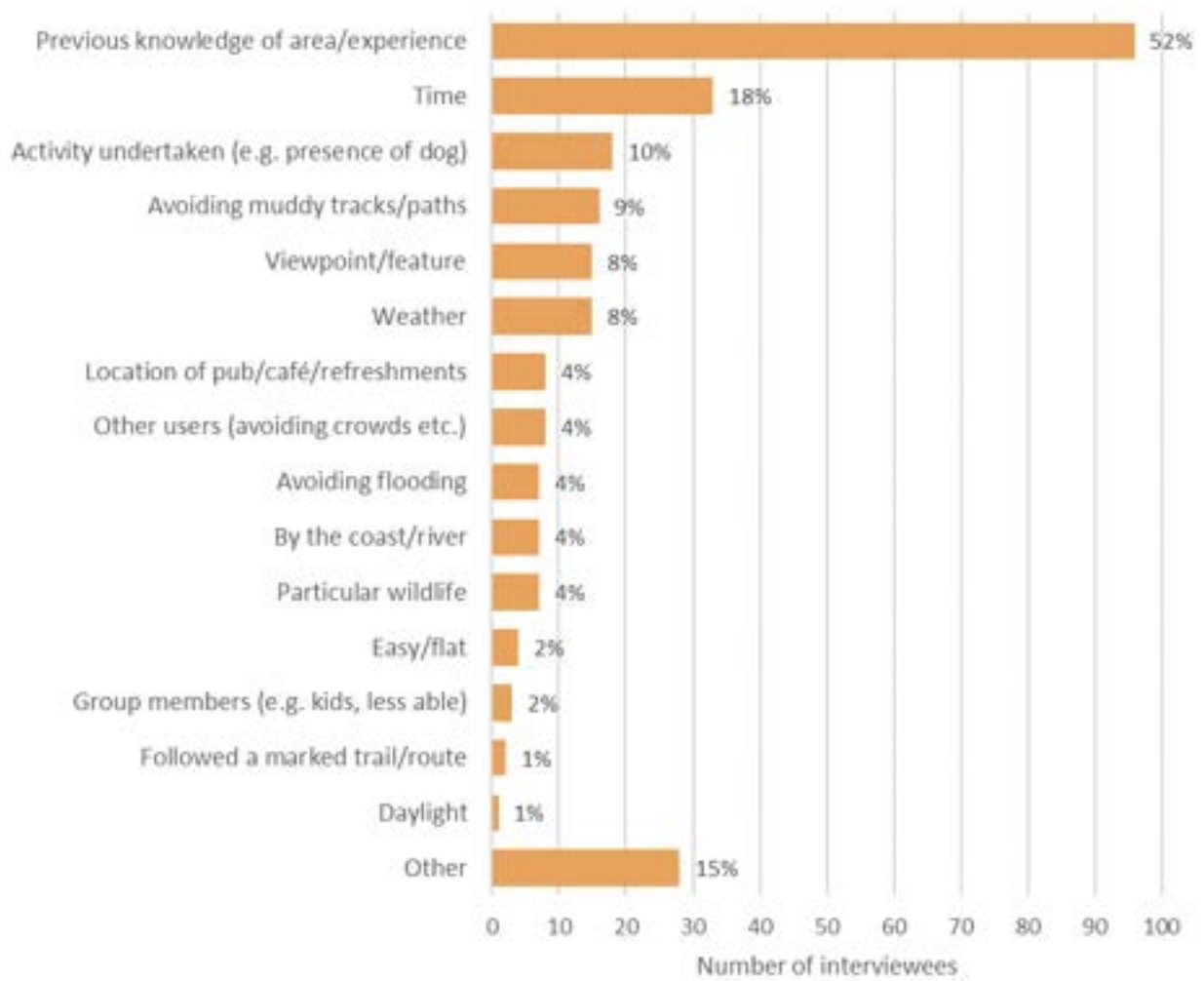
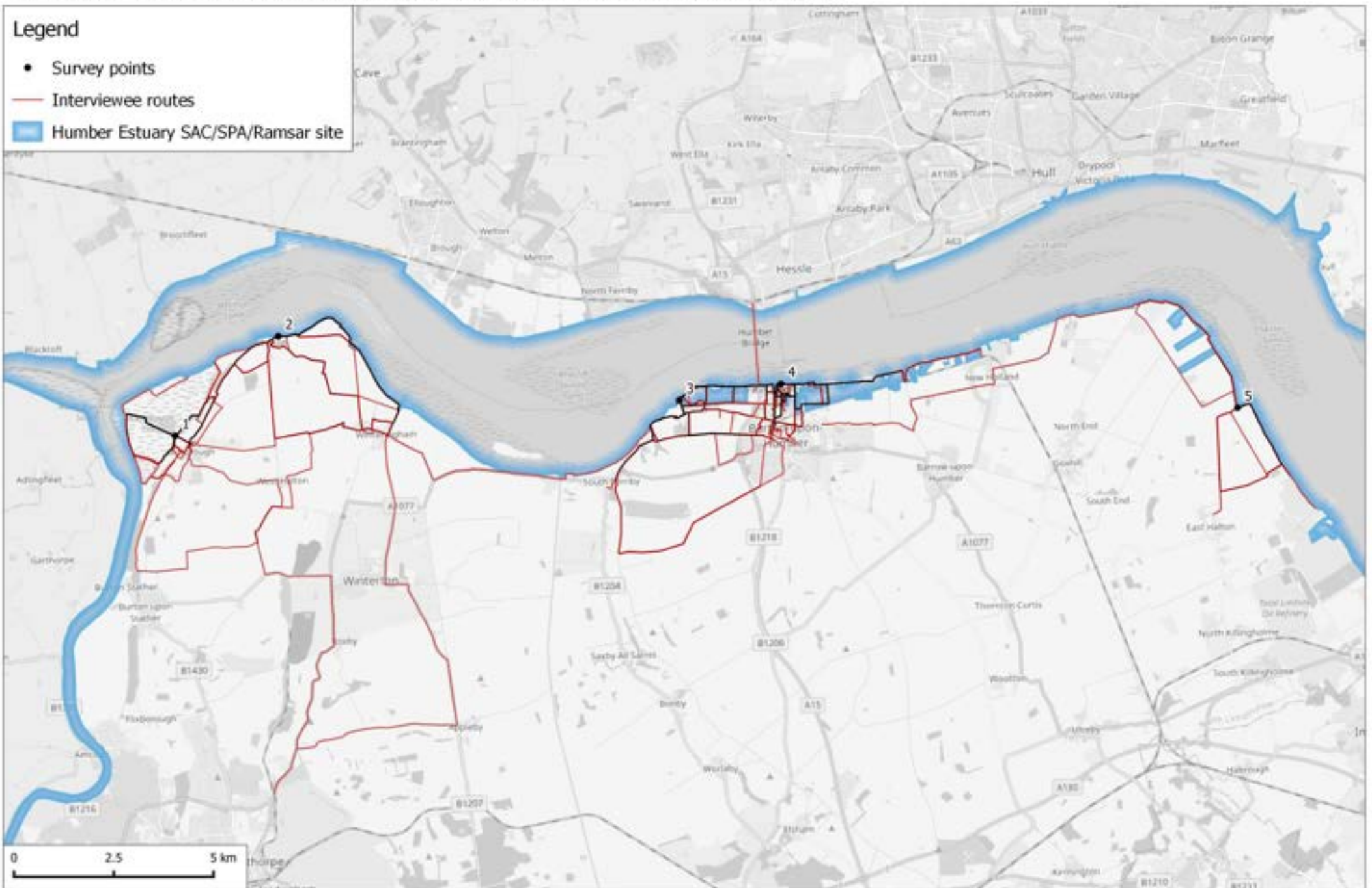
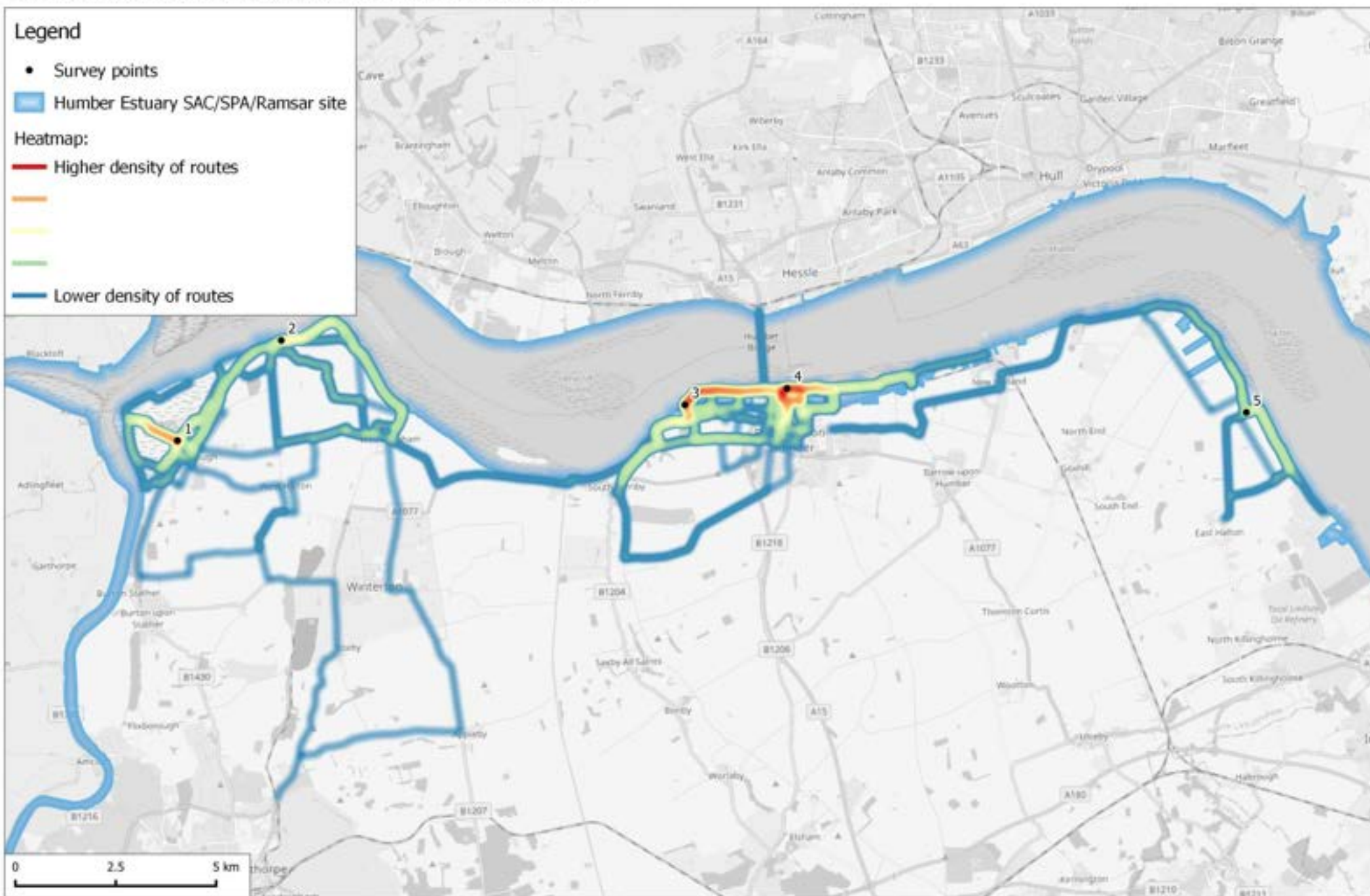


Figure 9: Factors influencing route choice (from Q10). Categories are based on pre-determined list with additional categories added to include commonly cited 'other' responses recorded as free text. Labels indicate the percentage of interviewees who cited each factor. Interviewees could cite more than one factor and therefore percentages will not add up to 100.

Map 3: Routes taken by interviewees during their visit. Darker lines indicate overlapping routes.



Map 4: Heatmap of routes taken by interviewees during their visit.



Reasons for choice of location (Q11)

- 4.25 Interviewees gave a wide range of reasons for choosing to visit the location where interviewed, rather than another location (Figure 10). Being close to home was the most common reason, cited by nearly a third of interviewees (55 interviewees, 30%). Other common responses related to habit/familiarity (43 interviewees, 23%) and the scenery/views (38 interviewees, 20%).
- 4.26 Responses grouped as 'other' included visiting someone nearby, following a route on AllTrails, working/shopping nearby and because there are surfaced paths.

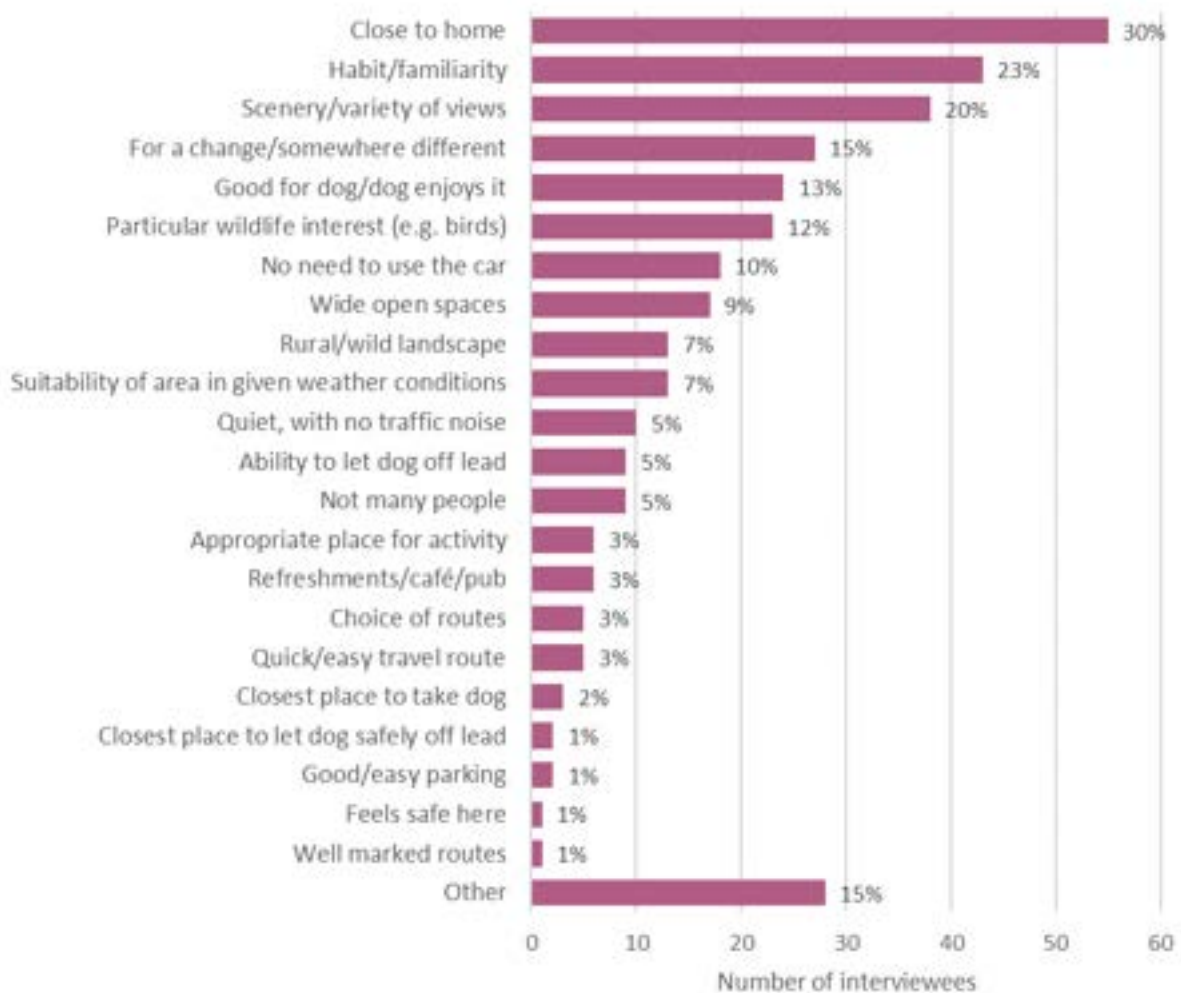


Figure 10: Reasons given by interviewees for choosing to visit the specific location where interviewed that day rather than somewhere else (Q11). Categories are based on a pre-determined list, with additional categories added following a review of free text responses. Labels indicate the percentage of interviewees who cited each reason. Interviewees could give multiple reasons and therefore percentages will not add up to 100.

Alternative locations visited (Q12-16)

- 4.27 Over a third of the interviewees (65 interviewees, 35%) indicated that at least three quarters of their visits for their activity take place at the interview location, including 17 interviewees (9%) who make all of their visits at the interview location.
- 4.28 Interviewees were then asked to name up to three other locations that they visit for their activity. Their responses were reviewed to check for spelling errors or alternative names for the same location. This resulted in a list of 136 different locations. This does not include non-specific responses such as 'local footpaths'. The most commonly cited locations were Far Ings (named by 28 interviewees, 15%), Alkborough (13 interviewees, 7%) and Barton Haven (13 interviewees, 7%). The most commonly named sites are listed in Table 6 and locations that were named by at least two interviewees are presented as a word cloud in Figure 11.

Table 6: The most common alternative sites that interviewees also visit (Q13-15). Each interviewee could name up to three alternative sites. Only sites named by at least four interviewees are included. Non-specific locations such as 'local footpaths' are not included.

Site name	Number (%) of interviewees
Far Ings	28 (15%)
Alkborough	13 (7%)
Barton Haven	13 (7%)
Barton	11 (6%)
Blacktoft Sands	8 (4%)
Normanby Hall Country Park	8 (4%)
South Ferriby	8 (4%)
Waters' Edge Country Park	8 (4%)
Cleethorpes	6 (3%)
Ancholme Valley	5 (3%)
Baysgarth Park	5 (3%)
Burton	5 (3%)
Laughton Woods	5 (3%)
North Cave	5 (3%)
Hull	4 (2%)
Humber Bridge Country Park	4 (2%)
Scunthorpe	4 (2%)

- 4.29 When asked how any of these sites could be improved for visitors, 18 interviewees made suggestions, which are summarised in Table 7.

Table 7: Suggestions from interviewees as to how other sites that they visit could be improved (Q16).

Q16 response	Site name (if given)
Access along Nev Cole Way – get access from farmers.	Nev Cole Way
Benches - more wanted everywhere.	
Better availability of bridleways for mountain biking, especially to take children off roads.	
Better surfacing, would be more likely to use.	
Bigger car park.	Broughton Woods
Gets muddy so disabled access bad. Stile can be awkward.	Alkborough Flats
Just the tracks, Ings Lane is very bad, not safe for horses either.	Winterton
Keep 4x4s and motocrosses off bridleways.	
More dog bins everywhere.	
More footpaths.	
More parking at Humber Bridge.	Humber Bridge Country Park
More parking. Bank around Burton – cut grass more often especially in summer.	
Extended opening hours.	Normanby Hall Country Park
Parking can be an issue in the village.	Alkborough
Some places could do with better signage. Keeping to rules on farm tracks (farmers).	
WW2 base path needs marking and maintaining.	Burton tank ramp



Figure 11: Word cloud showing the names of other sites that interviewees visit (Q13-15). Each interviewee could name up to three alternative sites. Font size indicates the frequency with which each site was named. Only sites named by at least two interviewees are shown, and non-specific locations such as 'local footpaths' are not included. Word cloud created using www.wordclouds.com.

Awareness of sensitive features and environmental designations (Q17-18)

4.30 Half of the interviewees (95 interviewees, 51%) could not name any species or habitats which are particularly susceptible to disturbance from visitors (Figure 12). Of those who were aware of species or habitats, the most common response was breeding birds (mentioned by 58 interviewees, 31%). This included some interviewees who specifically named Bittern or Marsh Harrier. Responses grouped as 'Other' included deer, reedbeds, foxes, otters and Water Voles.

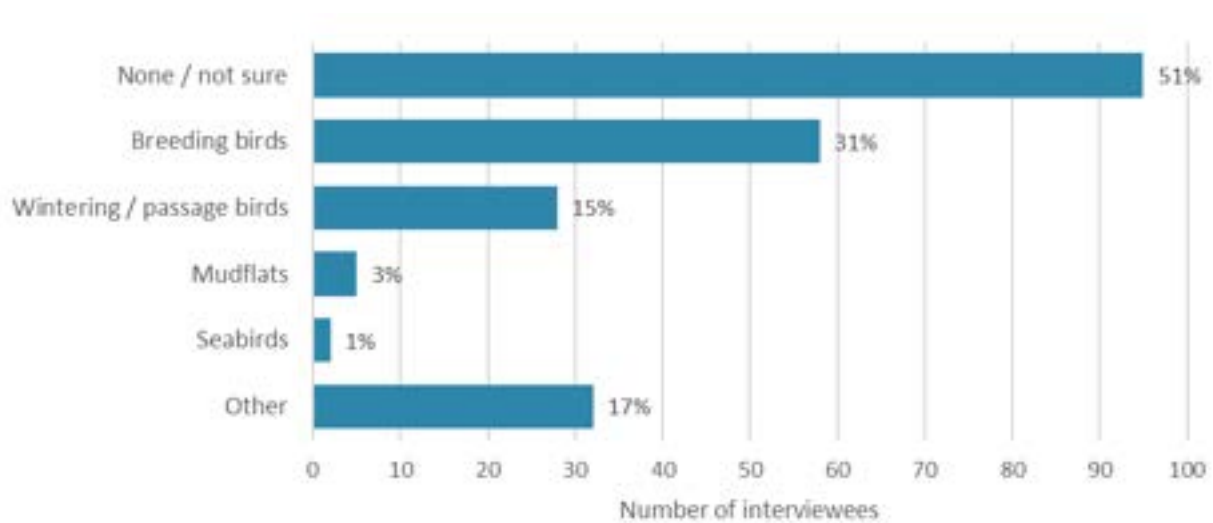


Figure 12: Sensitive species or habitats named by interviewees (Q17). Labels indicate the percentage of interviewees who gave each response. Interviewees could give multiple responses and therefore percentages will not add up to 100.

4.31 110 interviewees (59%) were not aware of any environmental designations of the location they were visiting, although an additional 33 interviewees (18%) were aware that it was protected but could not name any designations (Figure 13). Of those who did name a designation, the most common responses were SSSI (23 interviewees, 12%) and Nature Reserve (11%). Responses grouped as 'Other' were from 2 interviewees who were aware that it was a mitigation site for development and 1 interviewee who was aware that it had a European designation but did not know its name.

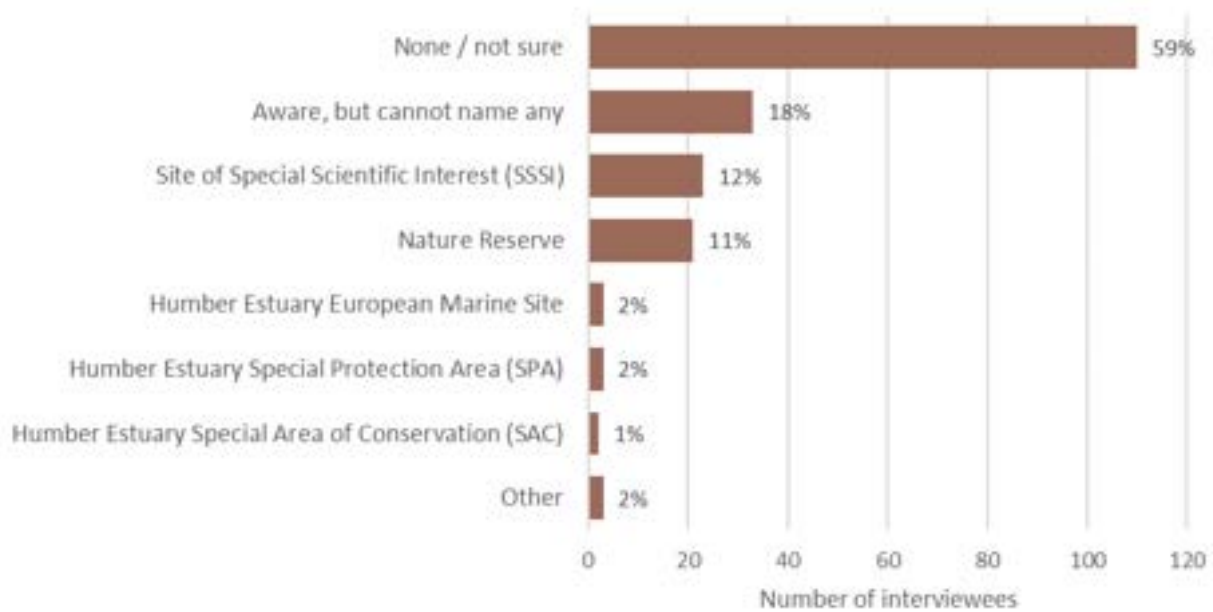


Figure 13: Environmental designations or protections named by interviewees (Q18). Labels indicate the percentage of interviewees who gave each response. Interviewees could give multiple responses and therefore percentages will not add up to 100.

Suggestions for access management (Q19)

- 4.32 Suggestions made by interviewees on how the site that they were visiting could be improved for access are summarised by survey location in Figure 14. The most common topic amongst responses was the condition of paths. This included requests for paths to be surfaced where they are especially muddy or flooded. The next most common topic was the need to repair potholes in access tracks/roads, particularly at survey points 3 (Chowder Ness Viewpoint) and 1 (Alkborough Flats).
- 4.33 Suggestions grouped as 'Other' included more access for dogs, more benches, more scrapes, more hides and controls on dogs or dog fouling.

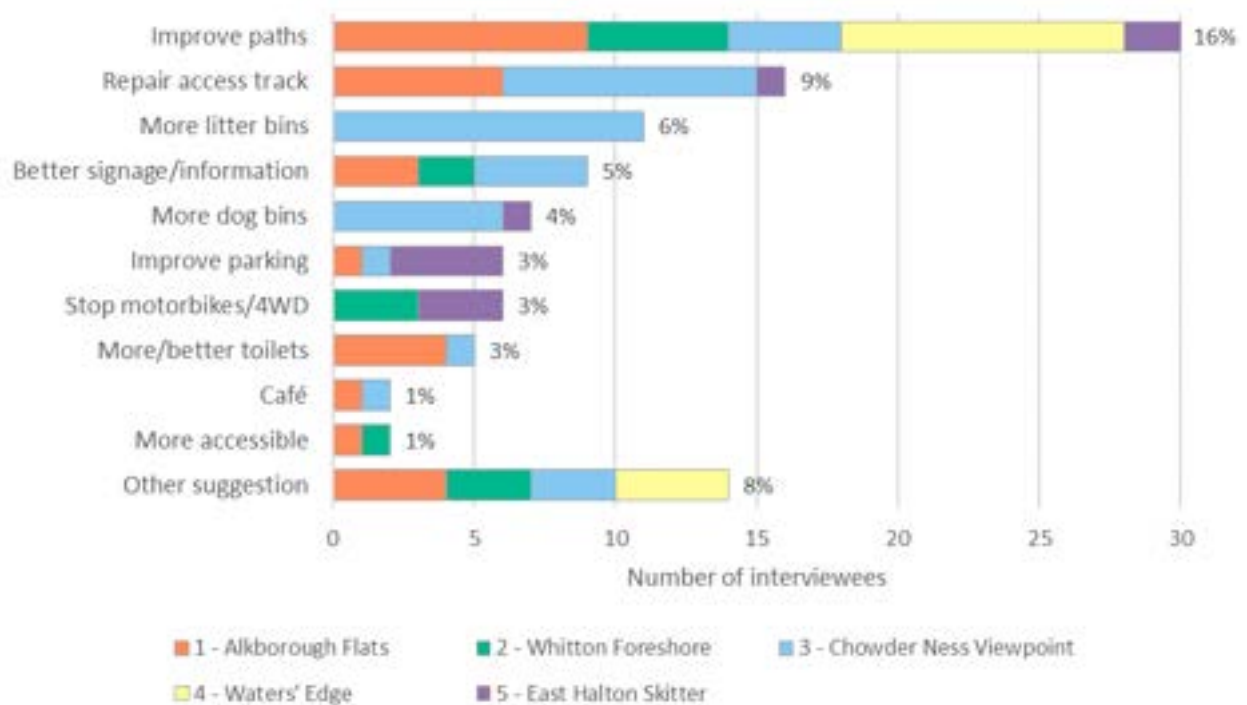


Figure 14: Improvements to site access suggested by interviewees (Q19). This was an open-ended question and interviewees could suggest multiple improvements. Common themes were identified through an analysis of responses. Labels indicate the overall percentage of interviewees with each response.

Further comments (Q20)

4.34 At the end of each interview, interviewees had the opportunity to make any additional comments or feedback about their visit and 28 interviewees (15%) responded to this question. Their comments were mostly positive, with many interviewees expressing their appreciation for the site that they were visiting. There were a few additional suggestions on how access could be improved.

Visitor origins (Q21-23)

4.35 A total of 183 interviewees (98%) gave full valid postcodes that could be plotted in GIS. The majority of interviewees (131, 72%) gave home postcodes in North Lincolnshire (Table 8). In total, interviewee postcodes spanned 12 local authorities, however four authorities (North Lincolnshire, East Riding of Yorkshire, City of Kingston upon Hull and West Lindsey District) together accounted for 90% of the people interviewed.

Table 8: Number of interviewee postcodes by local authority (only local authorities with 2 or more interviewees are shown).

Name	Authority type	Number (%) of interviewees
North Lincolnshire	Unitary Authority	131 (72%)
East Riding of Yorkshire	Unitary Authority	19 (10%)
City of Kingston upon Hull	Unitary Authority	7 (4%)
West Lindsey District	District	7 (4%)
North East Lincolnshire	Unitary Authority	6 (3%)
Doncaster District	Metropolitan District	4 (2%)
Rotherham District	Metropolitan District	2 (1%)
Selby District	District	2 (1%)

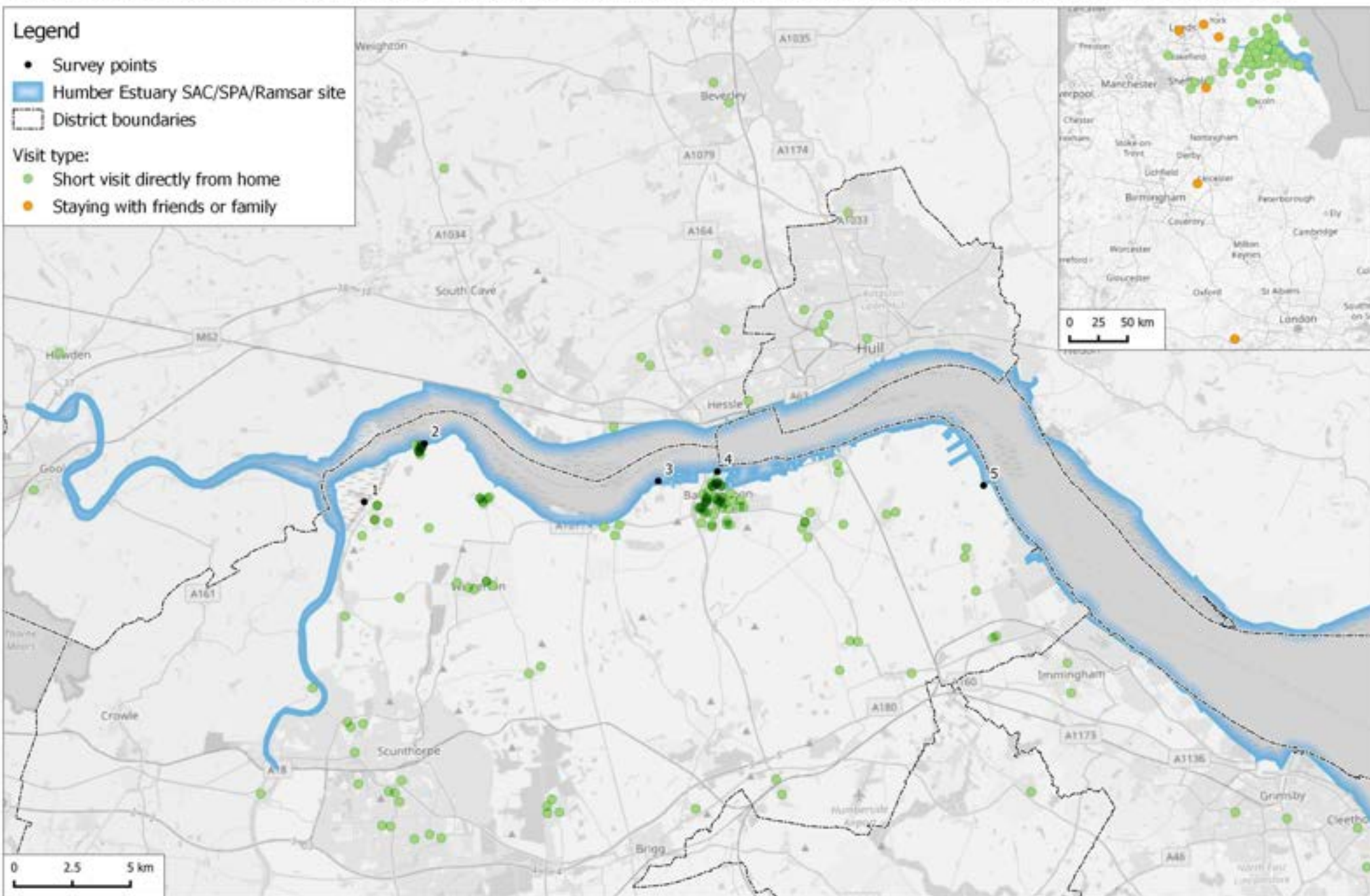
- 4.36 Maps 5 and 6 show the postcode data – by visit type (Map 5) and frequency of visit (Map 6). It can be seen that the postcodes span a wide area of north east England, however the majority were located south of the Humber Estuary, with 50 interviewee postcodes located in Barton-upon-Humber alone.
- 4.37 For each interviewee postcode the linear distance was calculated in GIS, measuring from the home postcode to the survey point at which the interview took place. Data are summarised for different types of visitors in Table 9. The distances ranged from 120 m to 253 km, with half of all interviewees giving home postcodes within 6.3 km of the survey location and 75% originated within 15.9 km. Taking just those on a short visit directly from home, half came from within 5.4 km and 75% within 14.7 km.
- 4.38 Dog walkers were particularly local to the location that they were visiting, with a median distance from home postcode to survey point of 2.9 km. In contrast, the median distance for those who were bird/wildlife watching was 14.7 km.
- 4.39 There was a correlation between the interviewee’s visit frequency and their distance from the survey location, for example the median distance for those interviewees who visit 1 to 3 times a week was 3.1 km compared to a median distance of 13.9 km for those who visit once a month.
- 4.40 There were also differences between survey locations, with interviewees at Alkborough Flats coming from a much wider area (median distance of 12.7 km) compared to the other survey locations.

4.41 In order to better understand where the majority of visitors originated from, Map 7 shows convex hulls drawn around the closest 75% postcodes to each survey location (those visiting from home only) i.e. the smallest possible shapes that contain these postcodes. From this it can be seen that some of these closest postcodes are north of the estuary, but the majority are within North Lincolnshire.

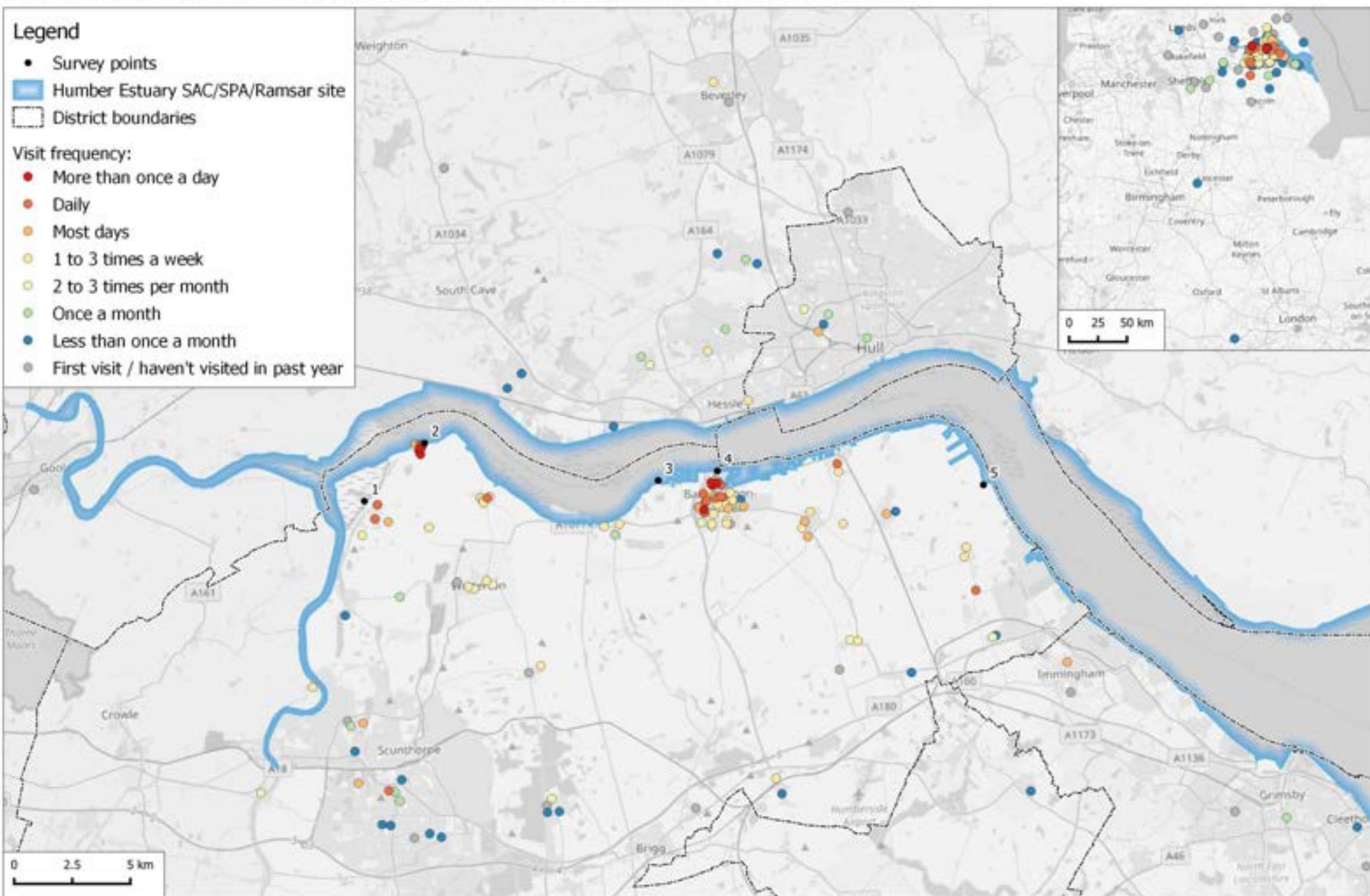
Table 9: Summary statistics for the straight-line distance (km) between the survey point and the home postcode for different groups of interviewees. N is the number of interviewees within each group who gave full valid postcodes. SE is the standard error of the mean and Q3 is the 75th percentile.

Category	N	Mean (\pm SE)	Range	Median	Q3
All interviewees	183	13.5 \pm 1.8	0.1 - 253.7	6.3	15.9
Visit type: Day trip/short visit from home	177	10.7 \pm 1.0	0.1 - 86.1	5.4	14.7
Visit type: Staying with friends or family	6	96.1 \pm 34.2	28.5 - 253.7	59.5	157.2
Main activity: Dog walking	78	7.6 \pm 1.2	0.1 - 44.4	2.9	8.8
Main activity: Walking	73	17.3 \pm 3.8	0.2 - 253.7	9.1	18.5
Main activity: Bird/wildlife watching	19	20.9 \pm 4.4	0.9 - 62.9	14.7	31.2
Main activity: Cycling/mountain biking	4	6.7 \pm 2.3	2.2 - 10.9	6.9	10.8
Main activity: Other activity	9	21.8 \pm 13.2	0.1 - 125.0	5.1	21.7
Visit frequency: More than once a day	8	0.7 \pm 0.2	0.3 - 1.8	0.5	0.6
Visit frequency: Daily	21	3.9 \pm 1.5	0.1 - 28.5	1.2	3.2
Visit frequency: Most days	20	4.4 \pm 1.0	0.2 - 14.7	2.2	7.5
Visit frequency: 1 to 3 times a week	44	4.3 \pm 0.6	0.5 - 17.3	3.1	5.4
Visit frequency: 2 to 3 times per month	15	6.4 \pm 1.2	0.9 - 15.8	5.0	9.7
Visit frequency: Once a month	18	19.0 \pm 3.7	2.5 - 61.7	13.9	25.1
Visit frequency: Less than once a month	32	31.1 \pm 8.2	3.0 - 253.7	17.8	34.2
Visit frequency: First visit	25	27.1 \pm 4.1	3.6 - 86.1	16.9	42.6
Survey location 1: Alkborough Flats	34	21.3 \pm 4.5	0.6 - 125.0	12.7	29.2
Survey location 2: Whitton Foreshore	21	6.1 \pm 2.2	0.1 - 44.4	3.4	7.4
Survey location 3: Chowder Ness Viewpoint	52	11.1 \pm 1.6	2.0 - 56.1	7.8	16.8
Survey location 4: Waters' Edge	65	14.1 \pm 4.2	0.4 - 253.7	4.8	15.8
Survey location 5: East Halton Skitter	11	11.5 \pm 3.2	2.8 - 40.9	8.6	13.3

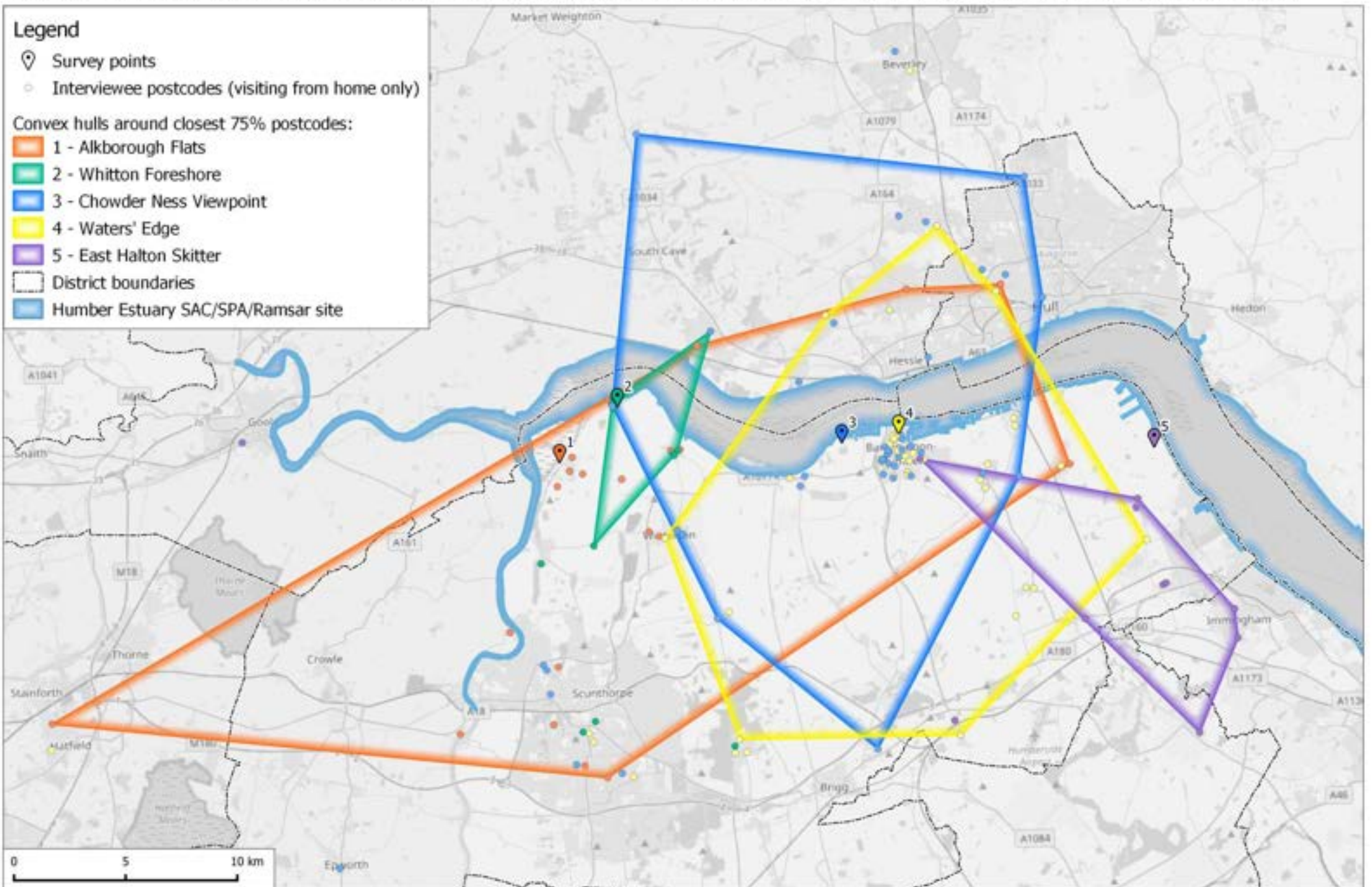
Map 5: Interviewee postcodes categorised by visit type. Darker colours indicate overlapping postcodes. Inset map shows all interviewee postcodes.



Map 6: Interviewee postcodes categorised by visit frequency. Inset map shows all interviewee postcodes.



Map 7: Postcodes of interviewees (those visiting from home only) with convex hulls drawn around the 75% closest postcodes to each survey location.



5. Discussion

Key findings

- 5.1 Visitor survey results show that at the time of the survey the Humber Estuary was primarily visited by dog walkers (42%) and walkers (40%). Almost all interviewees were visiting from home, with none of them on holiday, although 3% were staying away from home staying with friends or family. North Lincolnshire residents accounted for 72% of the interviewees and half of all interviewees lived within a 6.3 km radius of the location where they were interviewed. Interviewees at Alkborough Flats came from a wider area (median distance of 12.7 km) compared to the other survey locations.
- 5.2 On average, interviewees visited around 121 times a year (2-3 times a week) and stayed for just under 1.5 hours. Most interviewees (65%) indicated that they visit all year round, although 15% of interviewees were on their first visit to the survey location.
- 5.3 Between them, interviewees named over 130 other locations that they visit for their activity, which included the other survey locations (e.g. interviewees at Alkborough naming Far Ings and vice versa) as well as other locations along the Humber Estuary e.g. Blacktoft Sands.
- 5.4 Key metrics from the survey are given in Table 10.

Table 10: Selected metrics from the survey. * indicates the metric is extracted only for those on a short visit/day trip directly from home.

Metric	Result
Number of survey points	5
Total hours of fieldwork	80
Tally counts: mean number of people per group	1.7
Tally counts: mean number of dogs per group	0.6
Tally counts: mean number of people per hour (entering/leaving/passing)	9.8
Tally counts: mean number of dogs per hour (entering/leaving/passing)	3.8
Number of interviews	186
% interviewees on day visit from home	97%
% interviewees with main activity dog walking	42%
% interviewees with main activity walking	40%
% interviewees visiting at least once a day	16%
% interviewees on first visit	15%

Metric	Result
% interviewees arriving by car	69%
Median route length of interviewees during their visit (km)	3.70 km
% interviewees stating 'close to home' as a reason for site choice	30%
Median distance from postcode to survey location (km)	6.3 km
Median distance from postcode to survey location (km) *	5.4 km
75th percentile distance from postcode to survey location (km)	15.9 km
75th percentile distance from postcode to survey location (km) *	14.7 km

Comparison with previous survey

- 5.5 The visitor survey carried out in 2011/12 involved 20 survey locations on both sides of the estuary, extending from Goole to Spurn and as far south as Rimac. Three of these locations were the same or very similar to ones used in this survey, namely: Alkborough Flats, Waters' Edge and East Halton. As with the recent survey, two days of eight hours each were spent at each location over the winter (surveyed between November and March). Key metrics from both surveys, filtered for these three locations are presented in Table 11.
- 5.6 Some caution is required in comparing these figures since they are based on just two days at each survey location on each occasion. However, there are some interesting differences between the two surveys. The tally counts from the recent survey recorded a higher number of people per hour (9.4 people per hour compared to 5.9 people per hour in the previous survey). Whilst the proportion of interviewees whose main activity was dog walking was very similar in both surveys, the proportion of interviewees who were walking was much lower in the previous survey. This is largely due to a number of interviewees at East Halton who were fishing in the 2011/12 survey, making it the second most common activity at this survey location, rather than walking. There were also differences in the distance between interviewees' home postcodes and the survey location, with a median distance of 7.0 km in the recent survey compared to 3.8 km in the previous survey.

Table 11: Selected metrics from the recent survey and the 2011/12 survey, only for the three comparable survey locations. * indicates the metric is extracted only for those on a short visit/day trip directly from home.

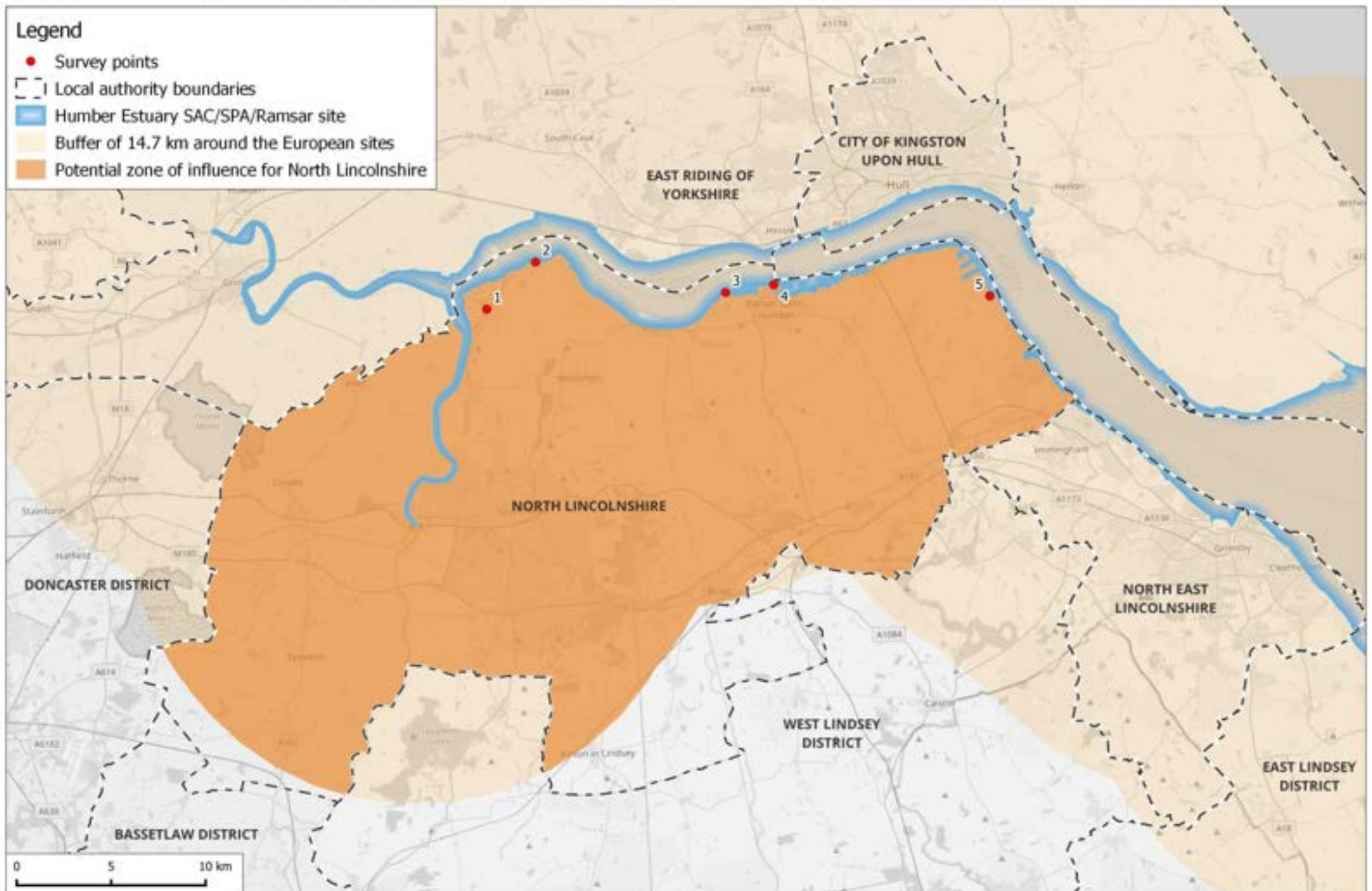
Metric	2011/12	2023
Number of comparable survey points	3	3
Total hours of fieldwork	48	48
Tally counts: mean number of people per group	1.5	1.6
Tally counts: mean number of dogs per group	0.9	0.7
Tally counts: mean number of people per hour (entering/leaving/passing)	5.9	9.4
Tally counts: mean number of dogs per hour (entering/leaving/passing)	3.3	4.3
Number of interviews	80	111
% interviewees on day visit from home	93%	95%
% interviewees with main activity dog walking	46%	45%
% interviewees with main activity walking	19%	38%
% interviewees visiting at least once a day	23%	14%
% interviewees arriving by car	73%	75%
Median route length of interviewees during their visit (km)	1.93	2.90
% interviewees stating 'close to home' as a reason for site choice	34%	22%
Median distance from postcode to survey location (km)	3.8	7.0
Median distance from postcode to survey location (km) *	3.4	6.3
75th percentile distance from postcode to survey location (km)	12.8	16.6
75th percentile distance from postcode to survey location (km) *	11.5	15.6

Potential zone of influence

- 5.7 The postcode data from the recent visitor survey can be used to identify a 'zone of influence' within which it is assumed that new housing will have a likely significant effect on the European sites due to the impacts from recreation. The best practice for defining this zone begins by calculating the 75th percentile straight-line distance from home postcode to survey location for interviewees who were visiting from home and applying this as a buffer to the European sites (Liley, et al., 2021).
- 5.8 Map 8 shows a buffer of 14.7 km (the 75th percentile distance for interviewees visiting from home) applied to the SAC/SPA/Ramsar boundary. Clearly there are some geographic barriers to consider, including the estuary itself. The intersection between this buffer and the North Lincolnshire Council area is highlighted in orange to indicate a potential zone of influence for the five locations that were surveyed.

- 5.9 It should be noted that some parts of North Lincolnshire are not coloured in Map 8, but it is possible that residents from these areas might visit other parts of the Humber Estuary e.g. Cleethorpes, that were not surveyed as part of this work. The distance that visitors come from to visit other parts of the Humber Estuary cannot be assumed to be the same as for the locations used in this survey since they are likely to vary in terms of recreational access, facilities and appeal/popularity.

Map 8: Buffer of 14.7 km around the European sites and a potential zone of influence for the locations that were surveyed.



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Appendix 1: Questionnaire



Good morning/afternoon. I am conducting a visitor survey on behalf of North Lincolnshire Council who are interested in gathering the views of people who are visiting areas along the Humber and Lincolnshire coastline. Can you spare me a few minutes please?

Q1 ...

- Are you on a day trip/short visit and have travelled directly from your home today... *if no*
- Are you on a short trip/short visit & staying away from home with friends or family ... *if no*
- Are you staying away from home, e.g. second home, mobile home or on holiday
- If none of the above, How would you describe your visit today?

Further details

Q2 What is the main activity you are undertaking today? Tick closest answer. Do not prompt. Single response only. Use the 'further details' box for any activities not listed.

- Dog walking
- Commercial dog walking
- Walking
- Jogging / Power walking / Running
- Outing with family
- Cycling / Mountain biking
- Bird / Wildlife watching
- Enjoying scenery / fresh air
- Photography
- Meeting up with friends
- Picnic
- Horse riding
- Boating
- Fishing from shore
- Fishing from boat / watercraft
- Kayaking / Canoeing
- Windsurfing
- Kitesurfing
- Paddleboarding
- Jet skiing
- Swimming
- Other fitness / sports
- Visiting cafe or visitor centre
- Other, please detail:

Further details

Q3 Are there any other activities that you or other members of your group are undertaking today? Tick as many other activities as the interviewee gives. Use the 'further details' box for any activities not listed.

- Dog walking
- Commercial dog walking
- Walking
- Jogging / Power walking / Running
- Outing with family
- Cycling / Mountain biking
- Bird / Wildlife watching
- Enjoying scenery / fresh air
- Photography
- Meeting up with friends
- Picnic
- Horse riding
- Boating
- Fishing from shore
- Fishing from boat / watercraft
- Kayaking / Canoeing
- Windsurfing
- Kitesurfing
- Paddleboarding
- Jet skiing
- Swimming
- Other fitness / sports
- Visiting cafe or visitor centre
- Other, please detail:

Further details

Q4 Over the past year, roughly how often have you visited this location? *Tick closest answer, single response only. Only prompt if interviewee struggles.*

- More than daily (365+ visits a year)
- Daily (300-365 visits)
- Most days (180+ visits)
- 1 to 3 times a week (40-180 visits)
- 2 to 3 times per month (15-40 visits)
- Once a month (6-15 visits)
- Less than once a month (2-5 visits)
- First visit / haven't visited in past year
- Don't know
- Other, please detail:

Further details:

Q5 How long have you spent / will you spend here today? *Single response only. Do not prompt.*

- Less than 30 minutes
- Between 30 minutes and 1 hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- 4 hours +

Further details:

Q6 Do you tend to visit this location more at a particular time of year for [insert given activity]? Multiple answers ok. Do not prompt.

- Spring (Mar-May)
- Summer (Jun-Aug)
- Autumn (Sept-Nov)
- Winter (Dec-Feb)
- Equally all year
- Don't know / not sure

Q7 What mode of transport did you use to reach the site today? Multiple response possible - e.g. car / van and on foot.

- Car / van
- On foot
- Train
- Bus
- Bicycle
- Other, please detail:

Further details:

Q8 Now I'd like to ask you about your route today. Looking at the area shown on this map, can you show me where you started your visit today, the finish point and your route please. Probe to ensure route is accurately documented. Use *P* to indicate where the visitor parked (if applicable), *E* to indicate where they started and *X* to indicate where they finished. Mark the route with a solid line for the route already taken and a dotted line for the expected or remaining route.

Q9 Is / was your route today (as mapped) the normal length when you visit here for [insert given activity]? Tick closest answer, do not prompt. Single response only.

- Yes, normal
- Much longer than normal
- Much shorter than normal
- Not sure / no typical visit

Q10 What, if anything, influenced your choice of route (as mapped) here today? Tick closest answers, do not prompt. Multiple responses ok.

- Weather
- Daylight
- Time
- Other users (avoiding crowds etc.)
- Group members (e.g. kids, less able)
- Avoiding muddy tracks / paths
- Followed a marked trail / route
- Previous knowledge of area / experience
- Activity undertaken (e.g. presence of dog or needing to access water, add details if needed)
- Location of pub / cafe / refreshments
- Viewpoint / feature
- Passing public toilets
- Other, please detail:

Further details:

Q11 Why did you choose to visit this specific location today, rather than another local site? Tick all responses given. Do not prompt, tick closest answers.

- Don't know / others in party chose
- Close to home
- No need to use car
- Quick / easy travel route
- Good / easy parking
- Particular facilities
- Refreshments / cafe / pub
- Choice of routes
- Well marked routes
- Presence of slipway / beach (easy access to water)
- Slope / terrain
- Feels safe here
- Quiet, with no traffic noise
- Not many people
- Scenery / variety of views
- Rural feel / wild landscape
- Openness / Wide open spaces
- Particular wildlife interest (e.g. birds, etc)
- Habit / familiarity
- Good for dog / dog enjoys it
- Ability to let dog off lead
- Closest place to take dog
- Closest place to let dog safely off lead
- Appropriate place for activity
- Suitability of area in given weather conditions
- For a change / variety
- Other, please detail:

Further details:

I would now like to ask about other local sites that you visit for *[given activity]*.

Q12 What proportion of your visits for *[given activity]* take place here compared to other sites. Can you give a rough percentage? *Do not prompt.*

- All take place here
- 75% or more
- 50-74%
- 25-49%
- less than 25%
- Not sure / don't know

Please could you tell me the name of up to 3 other sites that you visit for *[given activity]*? Please list them in order, starting with the one you visit most frequently. Record names as carefully as possible. Ask for spelling if necessary.

Q13 Name of Site 1 *[Most frequently visited]*

Q14 Name of Site 2

Q15 Name of Site 3

Q16 Have you any suggestions as to how any of the sites you have mentioned could be improved to make them better for people to visit? *Do not prompt, record site name if given.*

Q17 Amongst all the wildlife present on site, are you aware of any species or habitats which are particularly susceptible to disturbance from visitors? *Do not prompt, tick any answers as relevant.*

- None / not sure
- Breeding birds
- Wintering / passage birds
- Seabirds
- Flowering plants
- Saltmarsh
- Mudflats
- Seals
- Other, please detail:

Further details:

Q18 Are you aware of any environmental designations or protections that apply to the site? If so, can you name them? *Do not prompt, tick any answers as relevant.*

- None / not sure
- Aware, but cannot name any
- Humber Estuary European Marine Site
- Humber Estuary Special Protection Area (SPA)
- Humber Estuary Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)
- Nature Reserve
- Other, please detail:

Further details:

Q19 Are there any changes you would like to see at this site with regards to how this area is managed for access?

- No suggestion
- Specific request for no changes / leave in its current state
- Other suggestions, please detail:

Further details:

Q20 Do you have any further comments or general feedback about your visit?

- No
- Yes, please detail:

Further details:

Q21 Finally, to identify which areas people travel from to visit this site, what is your full home postcode? This is an important piece of information, please make every effort to record correctly. If necessary, reassure them that we don't want their full address, and it will only be used to work out where people are coming from.

Q22 If visitor is unable or refuses to give postcode: What is the name of the town or area where you live?

Q23 If visitor is on holiday ask: Which town / area are you staying in?

That is the end. Thank you very much indeed for your time.

Q24 TO BE COMPLETED AFTER INTERVIEW FINISHED.

Surveyor initials	<input type="text"/>
Survey location number	<input type="text"/>
Map reference	<input type="text"/>
Number of people in interviewed group (inc. minors)	<input type="text"/>
Number of bicycles	<input type="text"/>
Number of minors (under 18)	<input type="text"/>
Number of dogs	<input type="text"/>
Number of dogs seen off lead	<input type="text"/>

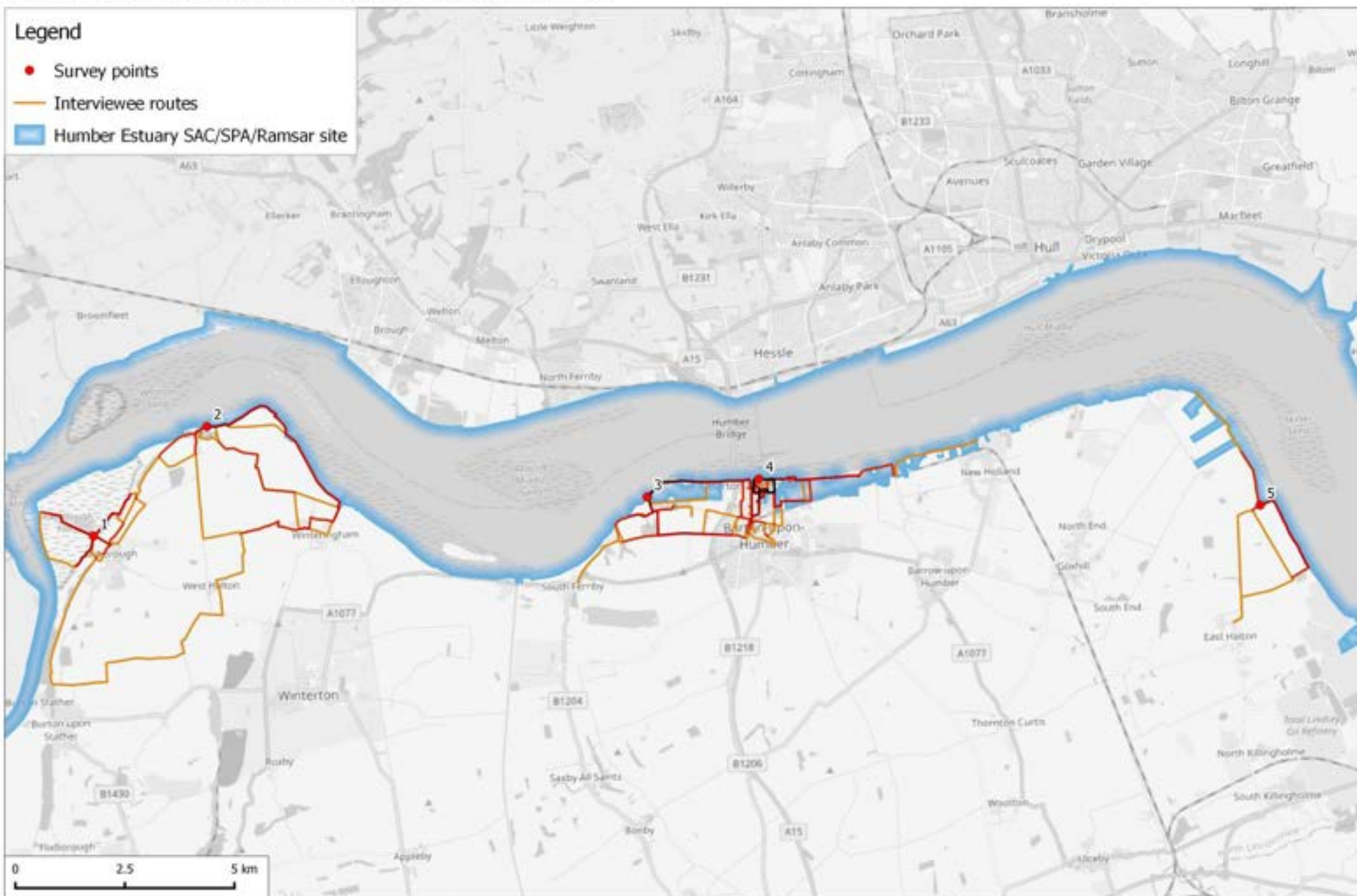
Q25 Did the interviewee struggle with answering questions because English was not their first language? Tick yes if you feel this may have influenced their responses.

Yes, interviewee struggled because English was not their first language

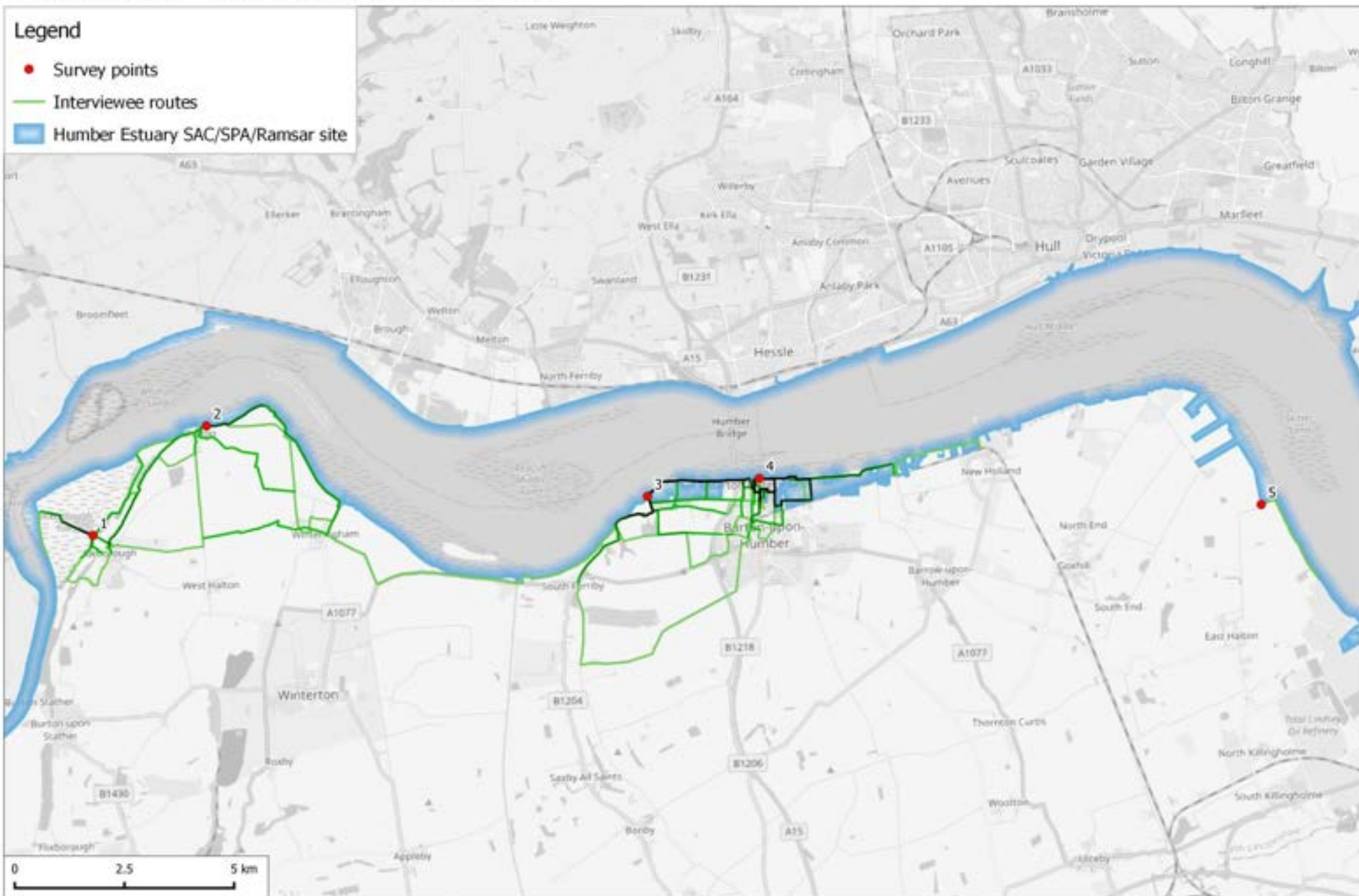
Q26 Surveyor comments. *Note anything that may be relevant to the survey, including any changes to the survey entry that are necessary, e.g. typos / mistakes / changes to answers / additional information.*

Appendix 2: Interviewee routes categorised by main activity

Routes of interviewees whose main activity was dog walking [n=79].



Routes of interviewees whose main activity was walking [n=74].



Routes of interviewees whose main activity was bird/wildlife watching [n=19].

