



Burnham Beeches Visitor Survey



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Summary

This report describes a visitor survey undertaken in 2013 at Burnham Beeches National Nature Reserve. The survey was commissioned to understand where people who visit Burnham Beeches live; to understand more about visitors' behaviour and where people go on the site when they visit and to gather views on potential future management at the site relating to dogs and the implementation of dog control orders.

In total, 134 hours of face to face interviews were conducted between August and November 2013; spread over 67 two-hour sessions. A total of 359 interviews were conducted.

The main activities undertaken by interviewees were dog walking (56% in interviews), walking (28%), family outings (9%), jogging/running (3%) and cycling (1%). The majority of visits were relatively short (60% indicated they visit was for within an hour). Dog walkers and those jogging/running tended to visit for the shortest length of time. A little under half (44%) of all visitors indicated they visited at least three times per week, indicating frequent use of Burnham Beeches by certain visitors, particularly dog walkers. Overall nearly three quarters (74%) of interviewees visit equally all year round, again indicating a high degree of regular use. Surveys were focussed at car-parks and the majority of interviews (85%) were with people travelling by car.

The reason visitors specifically chose Burnham Beeches, rather than another local site varied, but the most commonly given response related to Burnham Beeches being close to home, which was the primary reason for 43% of visitors selecting the site. Just 2% of visitors cited the wildlife interest and 3% the old trees as a reason for visiting the site (no dog walkers mentioned these features). Despite the low level of responses relating to the choice of site and the nature conservation interest, the majority of visitors (93%) were aware that the site was important for nature conservation. The visitor questionnaire therefore suggests a pattern of frequent local use by nearby residents who, while aware that the site is important for nature conservation, visit for the convenience of the location.

In total, 321 visitor routes were mapped. The average length of route within the site was 2.75km, with no significant differences between activities. We calculated an area figure for each route – this area figure being equivalent to the area encompassed by the route, taking the route as a perimeter of a polygon. The average area encompassed by a routes was 26.1ha (indicating that most visits could be contained within an eighth of the site) and there were no significant differences between activities. We summarised the visitor data to derive maps of visitor 'intensity' within the site. These maps indicate few parts of the site where no-one visits and access focussed around the main car-park and main routes through the middle of the site.

Postcode data indicates that interviewed visitors lived between 0.3km and 77.4km from the location where interviewed. Excluding the small number of visitors staying with friends or on holiday, the median distance from visitor's postcode to the interview location was 3.1km. There were significant differences between activities, with joggers and dog walkers being those who lived closest to Burnham Beeches. Slough and Farnham Royal were by the most common home settlements, accounting for nearly two-thirds (62%) of geocoded interviews. Slough was the most common settlement for all activities apart from jogging, for which all eleven geocoded interviews were conducted with residents from Farnham Royal, highlighting a particularly local catchment for this activity.

Extrapolation of visitor data indicates that around 16% of visitors currently come from postcodes within 0.5km of the SAC boundary and 5% come from postcodes within 1km. Visit rates per

household decline sharply with distance away from the SAC. Within a 5km radius there is a marked change with distance. A development of 100 dwellings at 5km is estimated to have the same impact (in terms of access to Burnham Beeches SAC) as 1.3 dwellings within 500m.

Questions relating to management of dogs and dog control orders revealed:

- Strong support for dog owners to be required to pick up and dispose of their dogs' waste correctly (99% of all interviewees supporting this measure, of which the majority (88%) indicated it should apply to the whole site).
- Strong support for areas where dogs should be put on a lead if requested (82% supporting this measure, 52% of which suggesting it should apply to part of the site and 43% to all the whole site)
- Moderate support for areas where dogs must be kept on leads at all times (54% support, of which the majority (82%) indicated it should apply to part of the site)
- Some support for areas where dogs are excluded (37% support, of which the majority (89%) indicated it should apply to part of the site)
- Moderate support for a limit on the number of dogs that an individual can walk (66% support, of which 39% suggested a limit of 3 dogs and 37% a limit of 4 dogs)

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1. Introduction

1.1 This report describes a visitor survey undertaken in 2012 at Burnham Beeches. The survey was commissioned with three particular aims:

- To understand where people who visit Burnham Beeches live
- To understand more about visitors behaviour and where they go on the site
- To gather views on potential future management at the site relating to dogs and the implementation of dog control orders.

1.2 These aims relate to the long term management of the site. An understanding of where people come from is an important element in terms of spatial planning, as it will inform where new development may result in changes in use of Burnham Beeches. Understanding visitor behaviour on the site provides the potential to then consider links between visitor use and impacts to the nature conservation interest of the site. These links will mean that local planning authorities will be in a position to consider implications of new development at particular locations. Understanding visitors views in relation to dogs and dog management within the site is an important element in deciding what dog control measures should be implemented within the site.

Burnham Beeches

1.3 Burnham Beeches is considered to be one of the most outstanding areas of acidic beech forest/beece wood pasture in the UK, and its importance for biodiversity is internationally recognised by its wildlife designations. The site is designated as a Special Area of Conservation (SAC) under the provisions of the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations). Burnham Beeches is also a National Nature Reserve, in recognition of its outstanding combined value to people, biodiversity and scientific research.

1.4 Approximately 220ha of the site is managed as a freely accessible public open space. Burnham Beeches is a very attractive and well known greenspace, providing high quality visitor facilities, beautiful scenery and a 'close to nature' visitor experience. Two visitor surveys have been undertaken in recent years involving direct counts of visitors and analysing data from automated counters (Wheater & Cook 2003, 2012). These surveys cover the City of London Corporation owned area only. The 2002/3 visitor survey identifies an estimated 560,000 visitors per year, which increases to around 585,000 (accompanied by c.215, 000 dogs) in 2010/11.

1.5 Burnham Beeches lies entirely within South Bucks District. Its ownership however is mainly split between the City of London Corporation and the private ownership of the Portman Burtley Estate, along with a small section owned by the National Trust and a very small area enclosed as a private garden.

1.6 Geographically Burnham Beeches lies between the M40 to the north, and the M4 to the south, and the associated urban areas of Beaconsfield and Gerrards Cross on the northern M40 corridor, and Slough and Burnham on the southern M4 corridor; a densely populated area of the UK. Particularly in southern England, with high (and

growing) human populations, the pressures for land and resources are intense and there can be implications for the protected sites. Development and changes in land use outside the protected area boundary can have impacts on the sites themselves. Such impacts can happen gradually, be difficult to identify, tricky to monitor and typically require some kind of strategic approach to resolve.

Recreation and Burnham Beeches

- 1.7 Liley *et al.* (2012) provided an overview of current issues in light of the potential impacts of future development near to Burnham Beeches SAC. Liley *et al.* (2012) also documented observed current impacts of recreational use on the site and these included trampling and soil compaction, climbing of veteran trees, dog fouling, disease spread, introduction/spread of alien species, litter/fly tipping, vandalism, fire incidence, reduction in water levels/supply and reduction in air quality. All of these may increase with a rise in local development without dedicated management/mitigation measures.
- 1.8 In recent years there have been a number of measures implemented at Burnham Beeches to manage visitor use and behaviour. These include car parking restrictions, a car free zone, relocation and improvement of visitor facilities, dog bins, signage, two surfaced trails and fencing around some of the feature trees. These measures have not only reduced the impact of visitors on the interest features of the site but also enhanced the visitor experience.
- 1.9 We know that the measures implemented have enhanced the visitor experience following public consultations and previous visitor work where people were asked to complete questionnaires. These visitor exercises did not however capture the home postcode of visitor groups nor did they capture the route taken on site. These pieces of information are key when considering links between housing and access patterns and also how people distribute within the site which allows links to be made between access patterns and the impacts of access.
- 1.10 South Bucks District Council, City of London and Natural England are working together to produce an evidence based specific planning policy for applications within the nearby urban area of Farnham Common and/or within 500m of the Burnham Beeches SAC boundary. Evidence is needed to establish where visitors to the Beeches live and the simplest method to gather this information is to collect home postcodes from visitors to the site – from this links can be drawn between access housing and visitor access to the SAC. At the same time information can also be collected on how each visitor group has used the site and where they went within the site, from which we can draw links between access patterns and the impacts of access on the SAC.
- 1.11 This visitor survey therefore sets out to address these gaps – home postcodes and movements within the site. An additional aim is to consider the responses of visitors to dog management measures - Dog Control Orders – which the City of London is considering implementing at the site.

2. Methods

Visitor Survey questionnaire

2.1 The questionnaire was designed to gather numerous pieces of information from visitors to Burnham Beeches relating to:

- Visitor type (e.g. a local resident or a holiday maker)
- Visit seasonality, duration, timing and frequency
- Transport mode used to access site
- Activity undertaken during visit and motivation for visiting
- The route taken by the visitor and whether this was reflective of their normal route
- Visitor demographics (age and gender)
- Home postcode
- The number of dogs observed with a visitor and whether these were seen on or off the lead
- The names of other local sites visited by interviewed group

2.2 A separate section at the rear of the questionnaire specifically considered visitor opinions on the potential introduction of Dog Control Orders.

2.3 The questionnaire is included within this report in Appendix 1. The questionnaire avoided any questions relating to visitors' awareness of nature conservation designations and also to changes respondents might like to see. This was deliberate in order to limit the length of the questionnaire (such questions have been included in previous surveys at Burnham Beeches).

Survey Methodology

2.4 The visitor surveys comprised face to face interviews with a randomly selected sample of visitors and a count ('tally') of all people, groups and dogs passing the surveyors location. Surveys were carried out at four locations (Map 1):

- The main car park on Lord Mayor's Drive (surveyors roamed between the gate, the cafe and other parking locations. No tally was maintained due to the scale of the car-park)
- The Stag car park
- The Dell car park
- The Moat (surveyors roamed around this area in the north west of the site, close to the shelter on the main path)

2.5 Survey dates are summarised in Table 1. Standardised counts and interviews were conducted in four two hour sessions per day (for summer: 0800 – 1000; 1100-1300; 1400-1600; 1700-1900 and in autumn: 0800-1000; 1015–1215; 1245–1445; 1500-1700). The 0800 start time coincided with the gates opening at the car-parks. Survey times were adjusted in autumn to account the reduction in daylight hours; no survey work was carried out in darkness. Face to face interview work was carried out over 18 dates,

B u r n h a m B e e c h e s V i s i t o r S u r v e y

totalling 134 hours. The allocation of days and survey points enabled a spread of survey effort and locations; with limited resources it was not possible to survey all survey points for all types of day (weekend/weekday) during all survey periods.

Table 1: Survey dates and locations

Period	Day	Main CP	Stag CP	Dell CP	Moat/ Roaming
Pre-school holidays	weekday	23/7/13		19/7/13	22/7/13
	weekend	20/7/13		21/7/13	
School holidays	weekday	8/8/13	7/8/13		
	weekend	11/8/13	10/8/13		
Late October	weekday	28/10/13		28-29/10/13	
	weekend	27/10/13	27/10/13		
Mid November	weekday	12/11/13			13/11/13
	weekend	16/11/13		17/11/13	
Total days		7.75*	3	4	2

*8 hours survey work were conducted on all dates indicated apart from the main car-park on the 28th Oct when strong winds led to temporary closure. For the same reason some survey sessions at the Dell on the same date were undertaken on the 29th.

- 2.6 As many people as practicable were interviewed; the surveyor randomly selected people to approach and where possible the focus was on those returning to the survey point rather than those just starting their visit.
- 2.7 Only one person per group was interviewed, with the group member being selected at random. No unaccompanied minors were interviewed and the number of people who refused to complete a survey or who had already been interviewed were also recorded. Weather conditions and any unusual activities, for example road works, access problems or other issues were noted and the surveyor provided an overview of the session at the end of the day.
- 2.8 Local visitors were made aware in advance that a visitor survey was taking place, through leaflets and face-face contact with site staff at Burnham Beeches, however no specific dates were shared, ensuring no visitors could time their visit to encounter (or avoid) being interviewed.
- 2.9 A standardised approach to interviewing was undertaken, with each surveyor wearing a high visibility jacket, carrying identification and placing a large poster in the window of their car to indicate that a visitor survey was underway. All surveyors were trained in the questionnaire protocol and survey design. Data were collected in the field using tablet computers. Effort was made to avoid inclement weather, however there were some surveys during hot days in the summer and particularly windy days in November.
- 2.10 Information on the routes taken by visitors was gathered to provide a clearer understanding of how people use the site. GPS units were trialled but the tree cover led to unreliable data from the units. It was hoped that the mid November surveys would provide the opportunity

to use the GPS units more as the trees usually have shed most of their leaves by this time, however this proved not to be the case in 2013 and the trees still retained much of their leaves.

Burnham Beeches Visitor Survey



Map 1: Survey Points

Contains Ordnance Survey data. Crown copyright and database right 2013

Data and analysis

- 2.11 The data were automatically collated from the tablets into a single data file as fieldwork took place. These data were checked manually to ensure errors were removed and any duplicated surveys were deleted (duplicates being identified through home postcode and checks of responses); one individual completed two surveys, one of which was removed.
- 2.12 Data analysis was carried out using Minitab (v10). Some analyses compare summer and autumn data – where such comparisons were made we grouped the pre-school holiday and holiday period as summer and the October/November period as autumn. Box plots are used to graphically present data for different groups; the plots show the median (i.e. the mid-point, represented by a horizontal line), the interquartile range (i.e. 25-75% of the data, represented by a box) and the vertical lines show the upper and lower limits of the data, with outliers represented by asterisks.
- 2.13 In order to plot the distribution of people within the site, a 50m grid, aligned to the national grid was used and data summarised for each grid cell. The grid covered the area owned and managed by the Corporation of London. Within each grid cell the following were extracted within the GIS:
- number of routes (all activities) intersecting the cell,
 - the number of dog walker routes intersecting the cell
 - the total number of people walking through the cell (i.e. summing the number of people in each group where the routes intersected the cell)
- 2.14 In order to adjust for survey effort, the data were extracted for each grid cell separately for each survey point (i.e. people interviewed at the Main Car-park, the Dell, the Stag and the Moat). The values were then divided by the number of days of survey work conducted at each survey point (see Table 1).
- 2.15 Home postcodes were geocoded using RoyalMail Postzon data files. Data on interview postcodes and levels of development (number of residential properties per postcode) were extracted within 500m bands drawn around the SAC.

3. Overview of data

Number of interviews conducted

- 3.1 In total, 134 hours of face to face interviews were conducted between August and November 2013; spread over 67 two-hour sessions. During this time, 359 interviews were conducted, accounting for group size these data reflect data on 702 individuals. A total of 70 individuals refused to complete a survey and 49 people were approached but had already been interviewed.
- 3.2 The highest proportion of interviews were conducted at the main car park (this is also where most of the survey effort was focussed), accounting for 61% of interviews overall (Table 2).

Table 2: Number of interviews conducted at each survey location in each survey season. Percentages are in parentheses.

Interview Location	Summer	Autumn	Total
Main Car-park	115(61)	104(60)	219(61)
Dell	25(13)	32(19)	57(16)
Stag	32(17)	14(8)	46(13)
Moat / Roaming	15(8)	22(13)	37(10)
Total	187(100)	172(100)	359(100)

Tally data

- 3.3 Tally data were not collected at the main car-park. At the other survey points a total of 245 groups and 470 people were recorded entering during the survey work. Seventy-two hours of survey work were undertaken at these points: hourly rates were therefore 3.4 groups and 6.5 people per hour entering.

4. Questionnaire results

Group size and number of dogs per group

4.1 Group sizes ranged from one to eight, with a median of two. The most commonly recorded group size was one (Figure 1).

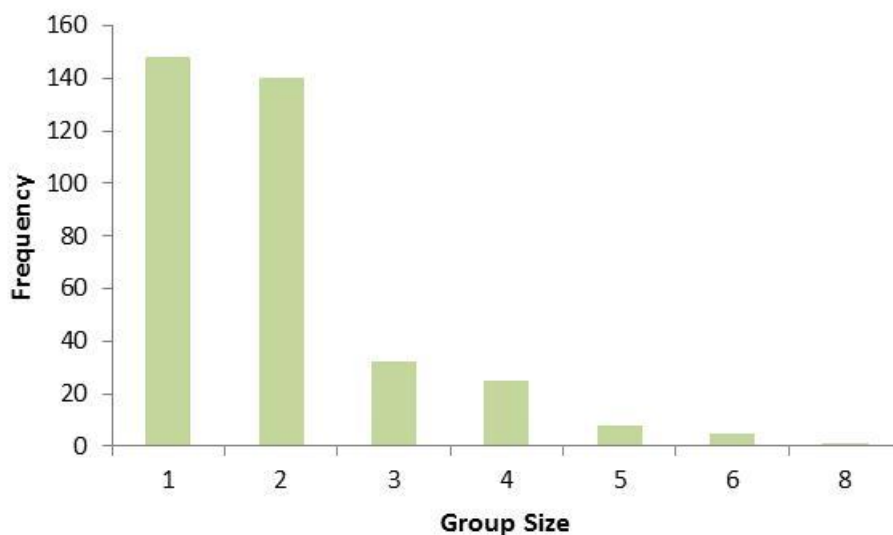


Figure 1: Frequency distribution of group sizes across the whole survey period at all survey locations.

4.2 Of the 359 groups that were interviewed, 62% had at least one dog with them; 312 dogs were recorded in all interviewed groups. While most interviewees (46%) had only one dog with them, the maximum was eight. A little over a third (38%) of interviewees did not have a dog with them on the day of the interview (Table 3). A higher number of respondents in the autumn did not have dogs with them than in the summer (41 and 35% respectively).

Table 3: Number of dogs per interviewed group, percentages are given in parentheses.

Number of dogs per group	Summer	Autumn	Total
0	65(35)	70(41)	135(38)
1	96(51)	70(41)	166(46)
2	17(9)	24(14)	41(11)
3	4(2)	5(3)	9(3)
4	4(2)	2(1)	6(2)
5	1(1)		1(0.3)
8	1(1)		1(0.3)
Total	188(100)	171(100)	359(100)

4.3 Overall, 52% of all dogs in interviewed groups were seen off the lead at some point by the surveyor (i.e. off the lead at the interview point).

Activities

4.4 Visitors were asked what main activity they were undertaking during their visit (visitors were asked to provide only one answer). The most commonly cited main activity was dog walking, accounting for 56% of all responses; a further 28% of interviewees were walking (Table 4), family outing, jogging/running, cycling and commercial dog walking also featured. Some 2% of respondents cited 'other' as their main activity, these included 'meeting friends', 'photography' or 'enjoying the scenery'.

Table 4: The range of main activities carried out by visitors interviewed during the summer and autumn survey periods. Percentages of the total number of responses are in parentheses.

Main Activity	Summer	Autumn	Total
Dog walking	111(31)	91(25)	202(56)
Walking	45(13)	55(15)	100(28)
Family outing	16(4)	16(4)	32(9)
Jogging / Running	7(2)	5(1)	12(3)
Other	4(1)	3(1)	7(2)
Cycling	4(1)	1(0.3)	5(1)
Commercial dog walking	1(0.3)		1(0.3)
Total	188(52)	171(48)	359(100)

4.5 Considering just the main activities ('dog walking, walking, jogging/running and family outing), there was no significant difference between the frequency of responses between the summer and autumn survey periods ($\chi^2_3 = 2.901$, $p=0.407$).

Time spent in the area

4.6 Visitors were asked how long they had spent, or intended to spend in the area on the day of their visit. Over the whole survey period, 49% of visitors stated that they had spent, or intended to spend, between thirty minutes and one hour on the site that day; 32% stated between one and two hours (Table 5).

4.7 There was a significant difference between the response frequencies for the two survey periods ($\chi^2_3 = 12.979$, $p=0.005$); values for the response 'more than three hours' were excluded for the purpose of this test due to the small sample size. In summer, higher numbers of visitors spent between thirty minutes and three hours on site than expected and lower proportion stayed for less than thirty minutes. Conversely, in the autumn, a higher proportion stayed less than thirty minutes.

Table 5: Time spent on site by respondents during each survey season. The percentage of the total per season is given in parentheses.

Time spent on site	Summer	Autumn	Total
Less than 30 minutes	10(5)	29(17)	39(11)
Between 30 minutes and 1 hour	96(51)	79(46)	175(49)
1 - 2 hours	63(34)	52(30)	115(32)
2 - 3 hours	14(7)	8(5)	22(6)
More than 3 hours	5(3)	3(2)	8(2)
Total	188(100)	171(100)	359(100)

4.8 The amount of time spent in the area varied according to the main activity being carried out that day (Table 6). The majority of dog walkers (60%) spent between thirty minutes and one hour on the site and none spent more than three hours. The majority of walkers spent between one and two hours on site (42%) or between thirty minutes and one hour (41%).

Table 6: Amount of time spent on site according to main activity across the whole survey period. The percentage responses for each activity are given in parentheses. Grey shading indicates highest percentage for each activity.

Main Activity	Less than 30 minutes	30 minutes to 1 hour	1 - 2 hours	2 - 3 hours	More than 3 hours	Total
Dog walking	29(14)	122(60)	47(23)	4(2)		202(100)
Walking	4(4)	41(41)	42(42)	9(9)	4(4)	100(100)
Family outing		3(9)	22(69)	5(16)	2(6)	32(100)
Jogging / Running	5(42)	7(58)				12(100)
Other			2(29)	3(43)	2(29)	7(100)
Cycling	1(20)	2(40)	1(20)	1(20)		5(100)
Commercial dog walking			1(100)			1(100)
Total	39(11)	175(49)	115(32)	22(6)	8(2)	359(100)

Frequency of visit

4.9 Visitors were asked how often they normally visited the site; 357 interviewees responded to this question. There was no significant difference in the frequency of responses to this question between the summer and autumn survey periods ($\chi^2_3=10.513$, $p=0.062$); for the purpose of this test, 'other' responses were removed due to the small sample size.

4.10 Across the whole survey period, 44% of respondents visit the site three or more times per week; slightly more visit with this frequency in summer compared to winter (48 and 38% respectively) (Table 7). 8% of respondents stated that the visit on the day of the interview was their first, or did not know how frequently they visit.

Table 7: The number of respondents who visit the site with different frequencies across both seasons. The percentage for each season is given in parentheses.

Frequency	Summer	Autumn	Total
Three or more times per week	91(48)	65(38)	156(44)
Less than once per month	22(12)	32(19)	54(15)
About once a week	19(10)	25(15)	44(12)
About once per month	21(11)	15(9)	36(10)
About twice a week	14(7)	21(12)	35(10)
Don't know / First visit	17(9)	10(6)	27(8)
Other, please detail	4(2)	1(1)	5(1)
Total	188(100)	169(100)	357(100)

4.11 The frequency of visits varied according to the main activity carried out, with the majority of dog walkers visiting the site three or more times per week (63%) (Table 8). 32% of walkers visit the site less than once a month, while 17% visit three or more times per week. The one commercial dog walker interviewed visits the site three or more times per week.

Table 8: The frequency of visits by respondents according to main activity carried out. The percentages for each activity are given in parentheses.

Main Activity & Frequency	Dog walking	Walking	Family outing	Jogging / Running	Other	Cycling	Comm.d og walking	Total
3 or more times per week	126(63)	17(17)	1(3)	9(75)		2(40)	1(100)	156(44)
About once a week	29(14)	11(11)	4(13)					44(12)
About twice a week	23(11)	8(8)	1(3)	3(25)				35(10)
About once per month	12(6)	14(14)	10(31)					36(10)
Less than once per month	6(3)	32(32)	10(31)		4(57)	2(40)		54(15)
Other		3(3)			1(14)			5(1)
Don't know / First visit	4(2)	14(14)	6(19)		2(29)	1(20)		27(8)
Total	201(100)	99(100)	32(100)	12(100)	7(100)	5(100)	1(100)	357(100)

Timing of visit

4.12 Visitors were asked if they tend to visit the site at a certain time of day and could choose multiple responses from six categories; 506 responses were recorded, 1.4 responses per person on average. The preferred time of day to visit the area provided by respondents differed significantly between the two survey seasons ($\chi^2_5 = 15.027$, $p=0.010$).

4.13 Overall, 19% of responses reflected a preference to visit the site in the early morning, followed by 17% who visit in late morning (Table 9). 31% stated that their preferred time of day to visit varies. Slightly more people tend to visit in the early morning and evening in summer compared to winter, possibly a reflection on the longer daylight hours in summer.

Table 9: The preferred time of day to visit the site given by respondents in each season. The percentages for each survey season are given in parentheses.

Time of Day	Summer	Autumn	Total
Early am. (before 9am)	50(20)	46(18)	96(19)
Late am. (between 9am and 12)	52(21)	36(14)	88(17)
Early pm. (between 12 and 2pm)	14(6)	34(13)	48(9)
Late pm. (between 2 and 4pm)	22(9)	36(14)	58(11)
Evening (after 4pm)	32(13)	27(10)	59(12)
Varies / Don't know / First visit	78(31)	79(31)	157(31)
Total	248(100)	258(100)	506(100)

4.14 The time of day to visit the site preferred by visitors also varied depending on the main activity undertaken. Many dog walkers and joggers tend to visit in the early morning (25 and 41% respectively) (Table 10). For all activities excluding the commercial dog walker interviewed, many visitors stated that their choice of time of day to visit varied (31% overall).

Table 10: The preferred time of day to visit the site according to main activity undertaken. The percentages for each activity are given in parentheses.

Main Activity	Early am.	Late am.	Early pm.	Late pm.	Evening	Varies/Don't know/ First visit	Total
Dog walking	74(25)	58(20)	19(6)	30(10)	45(15)	71(24)	297(100)
Walking	11(8)	20(15)	19(14)	19(14)	8(6)	56(42)	133(100)
Family outing	1(2)	8(18)	10(22)	6(13)	1(2)	19(42)	45(100)
Jogging / Running	7(41)			3(18)	4(24)	3(18)	17(100)
Other	1(14)					6(86)	7(100)
Cycling	2(33)	1(17)			1(17)	2(33)	6(100)
Commercial dog walking		1(100)					1(100)
Total	96(19)	88(17)	48(9)	58(11)	59(12)	157(31)	506(100)

4.15 Visitors were asked whether the time of year influenced the frequency with which they visit the site and could choose multiple responses from 6 categories; 390 responses were received for this question. There was no significant difference in the frequency of responses received during the summer and autumn survey periods ($\chi^2_4 = 7.303$, $p=0.121$); for the purpose of this test the responses for 'winter' were removed due to the small sample size.

4.16 Overall, the majority of visitors stated that they do not tend to visit the site at a specific time of year; choosing instead to visit equally throughout the year (74%) (Table 11). Only 1% of visitor responses stated that winter was a more preferable time of year to visit.

Table 11: The total responses given by respondents for each season category. Percentages for each survey season are given in parentheses.

Time of Year	Summer	Autumn	Total
Spring (Mar - May)	11(5)	7(4)	18(5)
Summer (Jun - Aug)	15(7)	11(6)	26(7)
Autumn (Sept - Nov)	8(4)	16(9)	24(6)
Winter (Dec - Feb)	2(1)	1(1)	3(1)
Don't know / First visit	21(10)	10(5)	31(8)
Equally all year	149(72)	139(76)	288(74)
Total	206(100)	184(100)	390(100)

Mode of transport

4.17 The mode of transport used by respondents to access the site was recorded; there was a significant difference between the transportation used in both survey periods ($\chi^2_1=4.638, p=0.031$); the values for 'bicycle' were removed for the purpose of this test due to the small sample size.

4.18 The majority of visitors reached the site by car or van (85%); slightly more visitors reached the site by car in the summer than the autumn (88% and 81% respectively) (Table 12). A higher number of visitors reached the site on foot in the autumn; 19% compared to 11% in the summer.

Table 12: Mode of transport used to visit the site across each survey season. Percentages are in parentheses.

Transport Mode	Summer	Autumn	Total
Car / Van	166(88)	138(81)	304(85)
On foot	20(11)	32(19)	52(14)
Bicycle	2(1)	1(1)	3(1)
Total	188(100)	171(100)	359(100)

4.19 When considering the mode of transport used to reach the site based on interview location, there is some variation in the transportation chosen (Figure 2). At each location, the majority of visitors arrived by car and the highest number of respondents who arrived on foot were at The Moat. No cyclists were interviewed at the Main or Stag car parks.

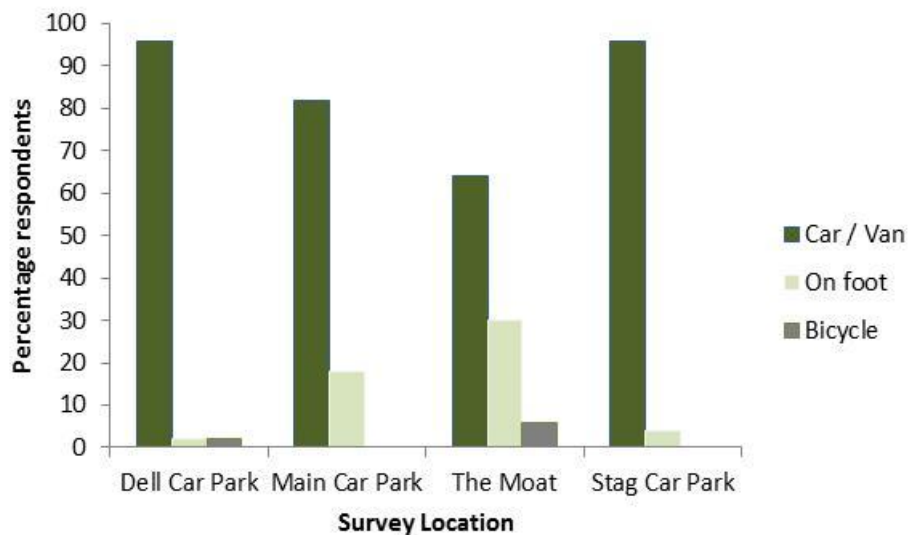


Figure 2: The percentage responses for each mode of transport used to reach the site by interview location

Reasons for visiting Burnham Beeches specifically

- 4.20 Visitors were asked to provide their reasons for choosing to visit Burnham Beeches specifically, rather than another local site. Multiple reasons could be chosen and these were categorised by the surveyor, then respondents were asked to determine which factor had the most influence in their decision to visit the site. In total, 1019 responses were given by the 359 interviewees.
- 4.21 There was a significant difference in the responses given in the summer and autumn survey periods ($\chi^2_{215}=48.663$, $p<0.001$). Overall, the most commonly cited reason for visiting the site over another local site was that it was close to home (19%); accounting for 22% of responses in summer and 17% in autumn (Table 13). Other reasons were commonly cited, including the choice of available routes (10%), the ability to let the dog off the lead (9%) and the size of the site (9%). Only 3% of responses stated that they chose to visit due to the presence of the veteran trees and 2% for the wildlife interest (but note that the old trees may, to some extent at least, contribute to the scenery and the rural feel).

Table 13: Reasons for choosing to visit Burnham Beeches over another local site. Percentages are given in parentheses.

Reasons	Summer	Autumn	Total
Close to home	94(22)	97(17)	191(19)
Choice of routes / circular routes / length	42(10)	61(10)	103(10)
Ability to let dog off lead / good for dog	39(9)	52(9)	91(9)
Large site	34(8)	54(9)	88(9)
Habit / familiarity	33(8)	53(9)	86(8)
Scenery / variety of views	45(10)	31(5)	76(8)
Other	26(6)	34(6)	60(6)
Feels safe	18(4)	33(6)	51(5)
Cafe	19(4)	21(4)	40(4)
Trees / old trees	4(1)	31(5)	35(3)
Rural feel	12(3)	20(3)	32(3)
Nearest place to let dog safely off lead	10(2)	19(3)	29(3)
Good / easy / free parking	11(3)	17(3)	28(3)
Good for children	9(2)	19(3)	28(3)
Wildlife interest	2(0.5)	22(4)	24(2)
Good location to meet friends / family	11(3)	6(1)	17(2)
Suitability in weather conditions	12(3)	3(1)	15(1)
Closest place to take the dog	4(1)	7(1)	11(1)
Can walk from home / don't need car	4(1)	4(1)	8(1)
Total	429(100)	584(100)	1013(100)

- 4.22 Visitors were asked to select which of the reasons stated had the most influence over their decision to visit the site that day; 339 main reasons were provided. The most commonly cited reason that had the most influence over the respondents' choice of site was that it was close to home (43%) (Table 14). 'Other' accounted for 20% of responses;

these included the scenery, the autumn colours, convenience or close to work and photography.

Table 14: Primary reason for choosing to visit Burnham Beeches over another local site. Percentages are given in parentheses.

Primary reason for choosing site	Summer	Autumn	Total
Close to home	72(42)	73(44)	145(43)
Other	31(18)	38(23)	69(20)
Scenery / variety of views	17(10)	8(5)	25(7)
Ability to let dog off lead / good for dog	11(6)	8(5)	19(6)
Habit / familiarity	10(6)	7(4)	17(5)
Good for children	2(1)	9(5)	11(3)
Suitability of area given weather	8(5)		8(2)
Large site	3(2)	4(2)	7(2)
Choice of routes / circular routes / length	4(2)	2(1)	6(2)
Wildlife interest		6(4)	6(2)
Feels safe	5(3)		5(1)
Nearest place to let dog safely off lead	3(2)	2(1)	5(1)
Good location to meet friends / family	3(2)	2(1)	5(1)
Trees / old trees	1(1)	3(2)	4(1)
Cafe	1(1)	2(1)	3(1)
Closest place to take the dog	1(1)	1(1)	2(1)
Good / easy / free parking		2(1)	2(1)
Total	172(100)	167(100)	339(100)

Other locations visited

4.23 Visitors were asked to indicate whether they visit any other local sites for the same purposes that they were visiting that day. Black Park was the most commonly cited location, with around a third (35%) of all interviewees stating listing it as an alternative destination. It seemed particularly popular with dog walkers (47% of dog walkers listed it). The River Thames/Jubilee River seems a particular draw for walkers, with around a quarter (24%) of walkers naming this site as an alternative.

Table 15: Other local sites visited by interviewees. Percentages are derived from total interviews (359) rather than total number of responses.

Location	Number (%)
Black Park	125 (35)
Clivedon	66 (18)
Jubilee River	61 (17)
Dorney Lake	59 (16)
Langley Park	35 (10)
Stoke Common	34 (9)
Windsor Great Park	23 (6)
Farnham Park	18 (5)

Location	Number (%)
Chilterns	13 (4)
Hedgerley	11 (3)
Hughenden Manor	11 (3)
River Thames	11 (3)
Virginia Water	11 (3)
Cookham	10 (3)
Richmond Park	5 (1)
Burnham Park	4 (1)
Marlow	4 (1)
Wooburn Green	4 (1)
Littleworth Common	4 (1)
Ashridge	3 (1)
Bourne End	3 (1)
Braywick Park	3 (1)
Penn Wood	3 (1)
Colne Valley / Denham Country Park	1 (0)

Membership of countryside/recreation organisations

4.24 Visitors were asked if they were members of certain conservation or dog-related organisations. Results are summarised in Table 16, by activity.

Table 16: Membership levels of interviewees for different organisations. Percentages are in parentheses.

Activity	National Trust	RSPB	Woodland Trust	A Wildlife Trust	Dogs Trust	Kennel Club	Total
Dog walking	67 (33)	27 (13)	13 (6)	14 (7)	34 (17)	14 (7)	202 (100)
Walking	48 (48)	18 (18)	5 (5)	12 (12)	12 (12)	4 (4)	100 (100)
Family outing	21 (66)	4 (13)	(0)	3 (9)	(0)	(0)	32 (100)
Jogging / Running	7 (58)	1 (8)	1 (8)	1 (8)	(0)	(0)	12 (100)
Cycling	5 (100)	(0)	(0)	1 (20)	(0)	(0)	5 (100)
Other	2 (29)	2 (29)	2 (29)	2 (29)	(0)	(0)	7 (100)
Total	150 (42)	52 (14)	21 (6)	33 (9)	46 (13)	18 (5)	359 (100)

Awareness of Burnham Beeches conservation importance

4.25 Respondents were asked if they were aware of the nature conservation value of Burnham Beeches; 357 responses were received and of these, 93% were aware of the importance of the site (Table 17). 94% of dog walkers and 90% of walkers were aware of its importance.

Table 17: Visitor awareness of the site as important for nature conservation, according to main activity undertaken. Percentages are in parentheses.

Main Activity	Yes	No	Not sure	Total
Dog walking	189(94)	8(4)	4(2)	201(100)
Walking	89(90)	9(9)	1(1)	99(100)
Family outing	30(94)	2(6)		32(100)
Jogging / Running	12(100)			12(100)
Other	7(100)			7(100)
Cycling	5(100)			5(100)
Commercial dog walking	1(100)			1(100)
Total	333(93)	19(5)	5(1)	357(100)

Age profile of interviewees and groups

4.26 The surveyor categorised the age groups of all respondents and the number of people in each interviewed group; in total the ages of 486 individuals were recorded. In total, 24% of all people in the interviewed groups fell into the 46-55 age category and 21% were between 36 and 45 (Table 18). Only 9% fell into the 25-35 category.

Table 18: Age categories of all interviewed groups. Percentages are in parentheses.

Age group	Response Total
24 or under	74(15)
25 - 35	44(9)
36 - 45	101(21)
46 - 55	118(24)
56 - 65	75(15)
66+	74(15)
Total	486(100)

5. Routes taken within the site

Choice of route

5.1 Visitors were asked whether the route they had taken, or planned to take, that day was reflective of the usual route taken when visiting the site; if the length of route was normal or influenced by other factors. In total, 356 respondents provided an answer to this question; 51% stated that the route was reflective of their normal route, 37% had no typical route or were not sure, 12% took a shorter route and 1% a longer route.

5.2 Respondents were also asked what factors, if any, had influenced their choice of route that day; comments were categorised by surveyors and multiple answers were accepted. Overall, 29% of responses related to previous knowledge or experience on the part of the respondent; time available and the activity undertaken that day each accounted for 18% of responses (Table 19). Few responses related to the information or interpretation available on site (2%). Weather influenced slightly more visitors in the autumn than the summer (14 and 10% respectively); in late October, high winds influenced the activities of many visitors.

Table 19: Factors influencing route in each survey period. The percentage of the total for each survey season is given in parentheses.

Factors influencing choice of route	Summer	Autumn	Total
Previous knowledge / experience	35(24)	72(33)	107(29)
Time available	32(22)	35(16)	67(18)
Activity undertaken	24(16)	41(19)	65(18)
Weather	14(10)	31(14)	45(12)
Group members (eg, kids / less able)	9(6)	16(7)	25(7)
Other	6(4)	10(5)	16(4)
Daylight	3(2)	6(3)	9(2)
Wanting to be near water	7(5)	2(1)	9(2)
Shade	9(6)		9(2)
Information / leaflets etc	4(3)	3(1)	7(2)
Other users	3(2)	2(1)	5(1)
Total	146	218	364

5.3 Overall, 30% of dog walkers stated that previous knowledge and experience influenced their choice of route on the day of the interview and 14% tailored their route to their activity (Table 20). Of those respondents on a family outing, 34% stated that group members, such as the presence of children, influenced their route.

Table 20: Factors influencing route choice and duration by each activity undertaken. The percentage of the total for each activity is given in parentheses.

Factors influencing choice of route	Dog walking	Walking	Family outing	Jogging	Other	Cycling	Commercial dog walking	Total
Previous knowledge / experience	63(30)	34(35)	5(13)	3(43)		2(100)		107(29)
Time available	47(22)	16(16)	3(8)		1(17)			67(18)

B u r n h a m B e e c h e s V i s i t o r S u r v e y

Activity undertaken	39(18)	17(18)	6(16)	2(29)	1(17)			65(18)
Weather	30(14)	9(9)	2(5)	1(14)	3(50)			45(12)
Group members (eg, kids)	4(2)	7(7)	13(34)	1(14)				25(7)
Other	7(3)	6(6)	2(5)		1(17)			16(4)
Daylight	9(4)							9(2)
Wanting to be near water	5(2)	2(2)	1(3)				1(100)	9(2)
Shade	6(3)	2(2)	1(3)					9(2)
Information / leaflets etc		4(4)	3(8)					7(2)
Other users	3(1)		2(5)					5(1)
Total	213(100)	97(100)	38(100)	7(100)	6(100)	2(100)	1(100)	364(100)

5.4 Respondents had the opportunity to provide further details about the factors influencing their route choice. Many respondents stated that they were taking a routine walk or run, while some chose their route based on paths and surfaces that were suitable in the given weather conditions. In the autumn, during one survey weekend, stormy weather played a role in the choice of route for many; high winds influenced the activities of some visitors due to car park closures and safety concerns.

Summary of route data relating to route lengths and route areas

5.5 In total 321 routes were mapped. Unfortunately GPS units proved too inaccurate to use due to the tree cover, and routes were therefore collected using paper maps and asking people where they had been within the site. All 321 routes are shown in Map 2. The length of these routes ranged from 0.06km to 6.7km. Across all routes the average length was 2.75km \pm 0.06km (median =2.68km) and three quarters of routes were 3.42km or less.

5.6 Cyclists tended to have longer routes (Figure 3), but overall there was no significant difference between activities in the length of routes (Kruskal Wallis H = 7.03, df =5, $p=0.219$).

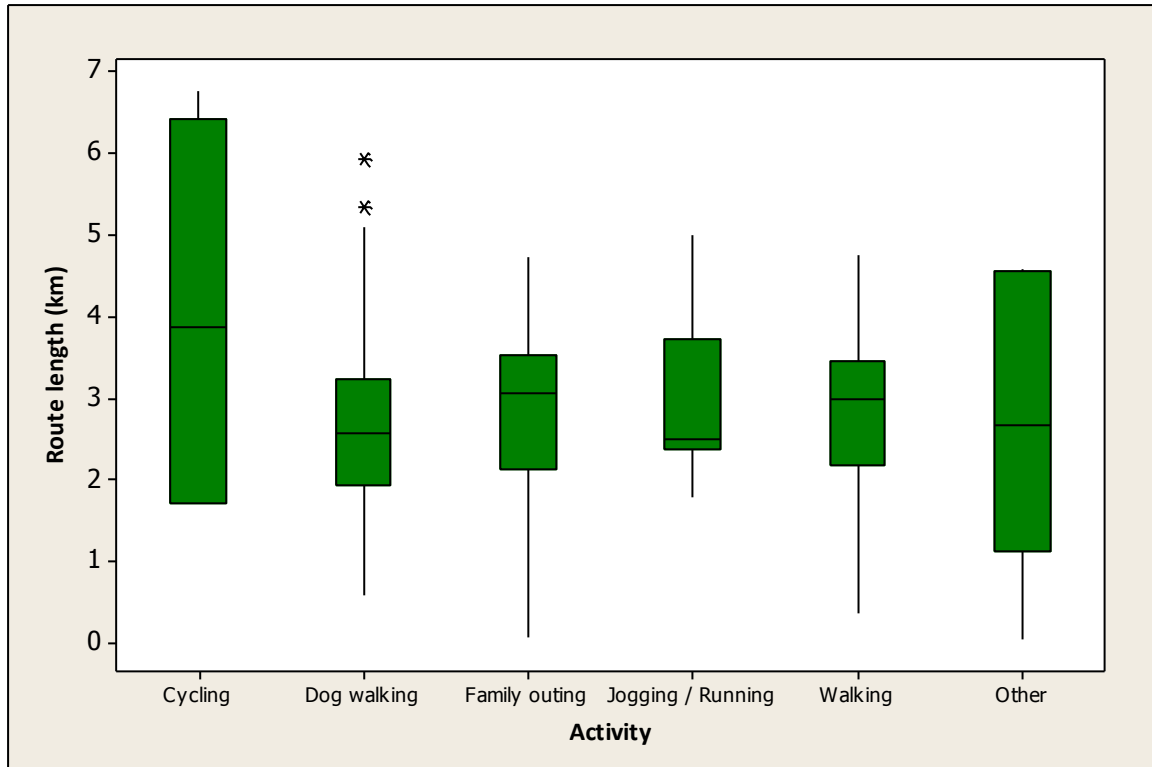


Figure 3: Route length by activity. The one commercial dog walkers is included with the other dog walkers.

- 5.7 We also extracted the area encompassed by each route. This area figure was derived by assuming that the route as mapped was the outer boundary of a polygon, rather than a line. Such values are useful as they provide an indication of the space each activity uses. The average area for all users was 26.1ha \pm 1.23, with a median of 21.4ha and a range of 0.01ha-123.30ha.
- 5.8 There was no significant difference in the area values for each activity (Kruskal-Wallis H=5.89; df=5, p=0.317). Looking at the data (Figure 5) for different activities it can be seen that dog walkers were the users who had the least variation, with a median area of 19.19ha and an interquartile range from 9.33ha – 32.05ha (in other words half of all dog walks encompassed an area between 9.33 and 32.05ha).

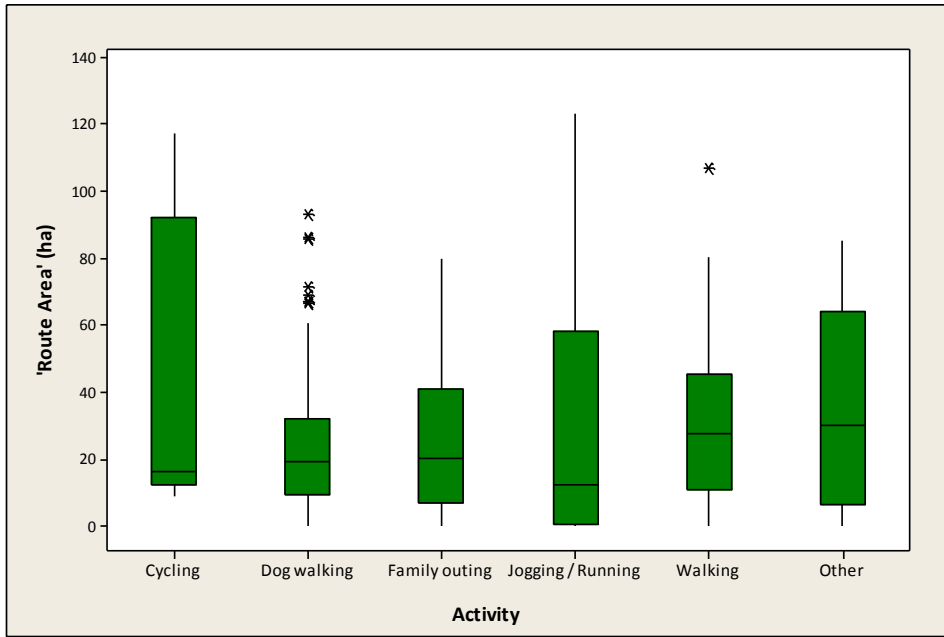
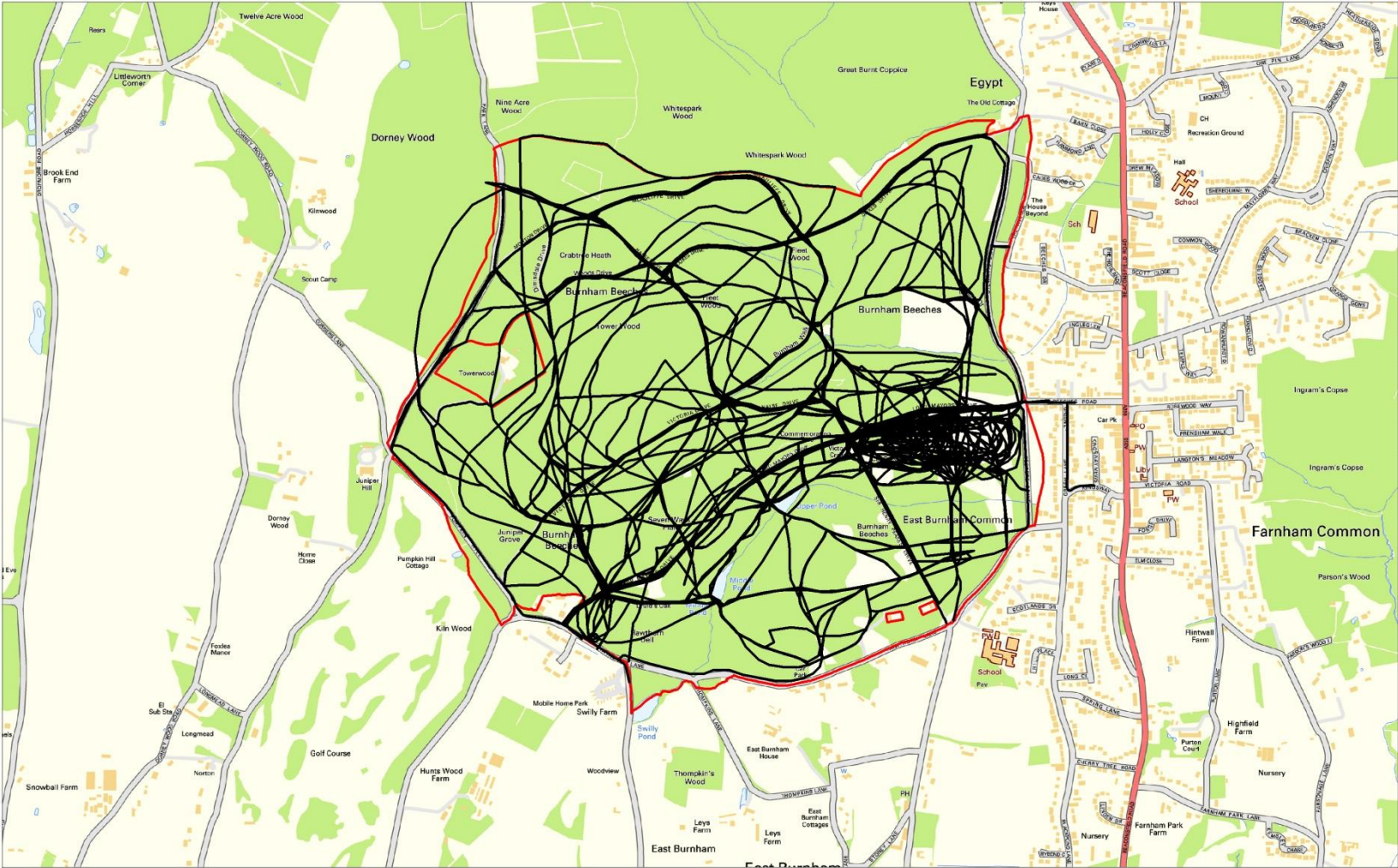


Figure 4: Route area by activity

Burnham Beeches Visitor Survey



Map 2: All routes

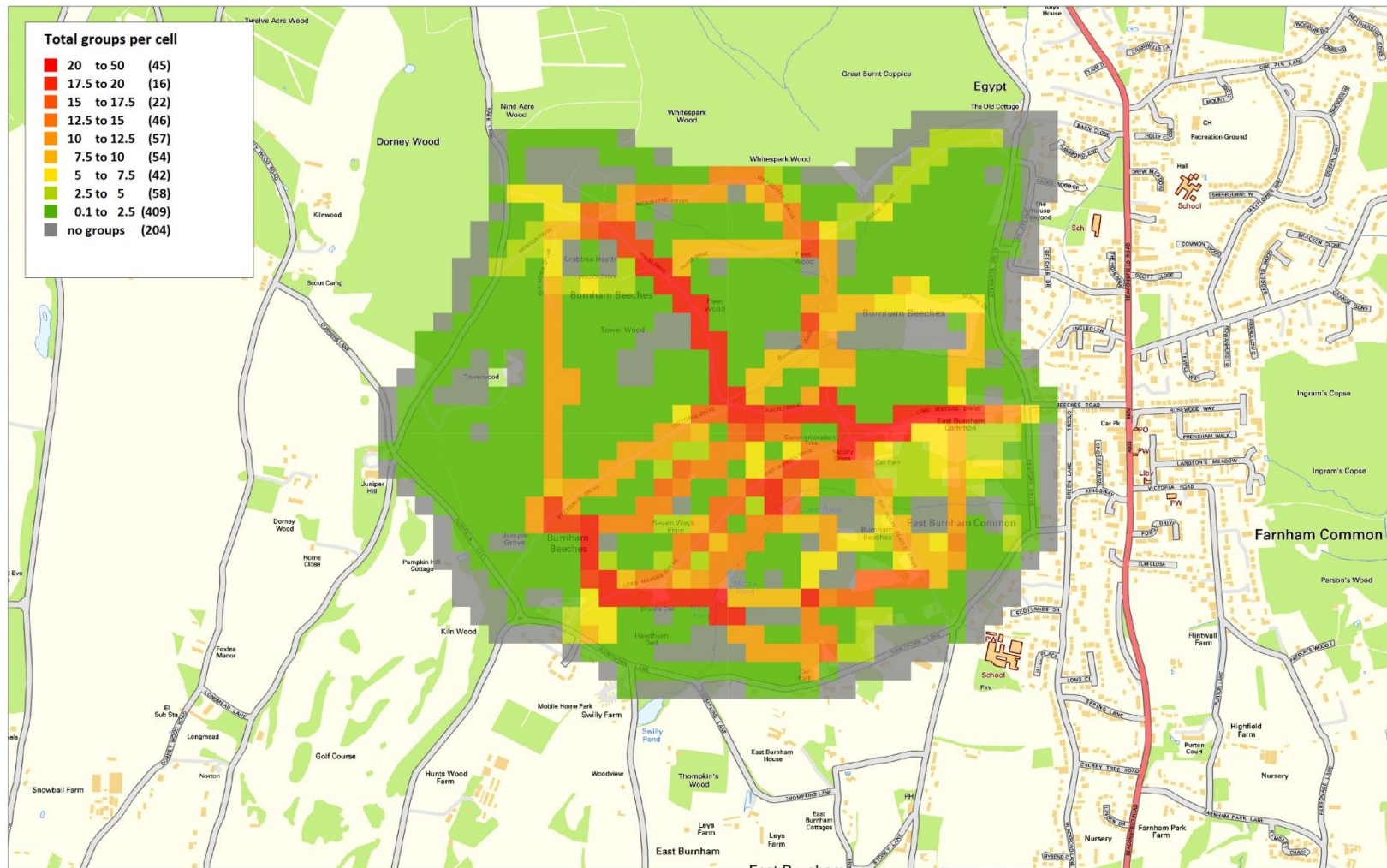
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- Routes
- Burnham Beeches boundary (Corporation of London)

Visitor intensity maps

- 5.9 In order to summarise the spatial distribution of access within the SAC, route data were extracted using a 50m grid, and for each grid cell the number of routes intersecting the cell, the total number of people (i.e. accounting for group size of the interviewed visitors) and the total number of routes for which dog walking was the main activity. Three separate maps were then generated using these data.
- 5.10 Map 3 shows the total number of routes through each cell. Map 4 shows the total number of people (i.e. 'footfall') and Map 5 shows the total number of dog walking routes. In each of these maps we have accounted for survey effort by plotting the routes for each survey point separately and then by dividing the cell totals by the number of days survey work at each access point. The data were then combined to allow a single map to be generated.

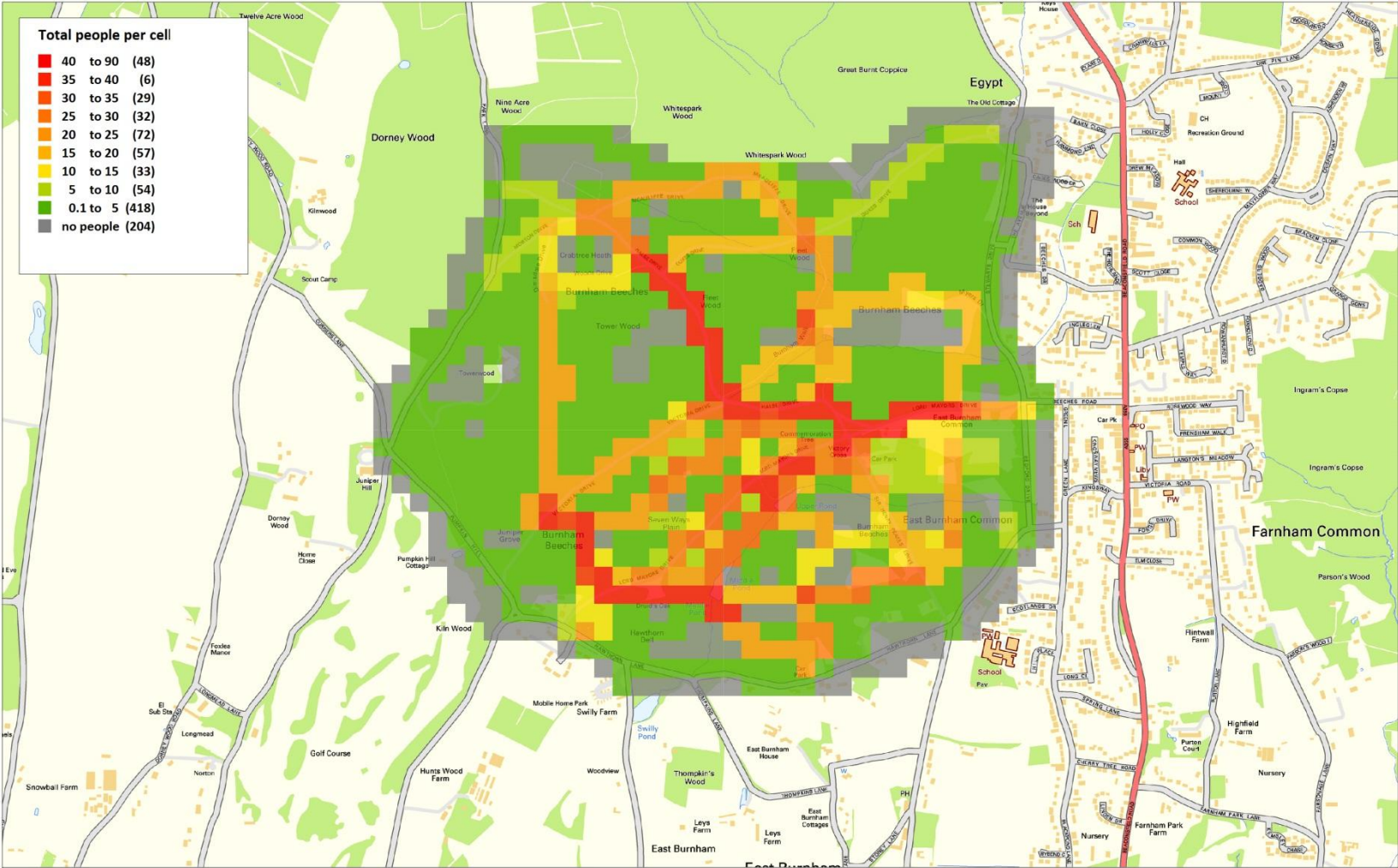
Burnham Beeches Visitor Survey



Map 3: Total groups per 50m grid cell (all activities, adjusted for survey effort)

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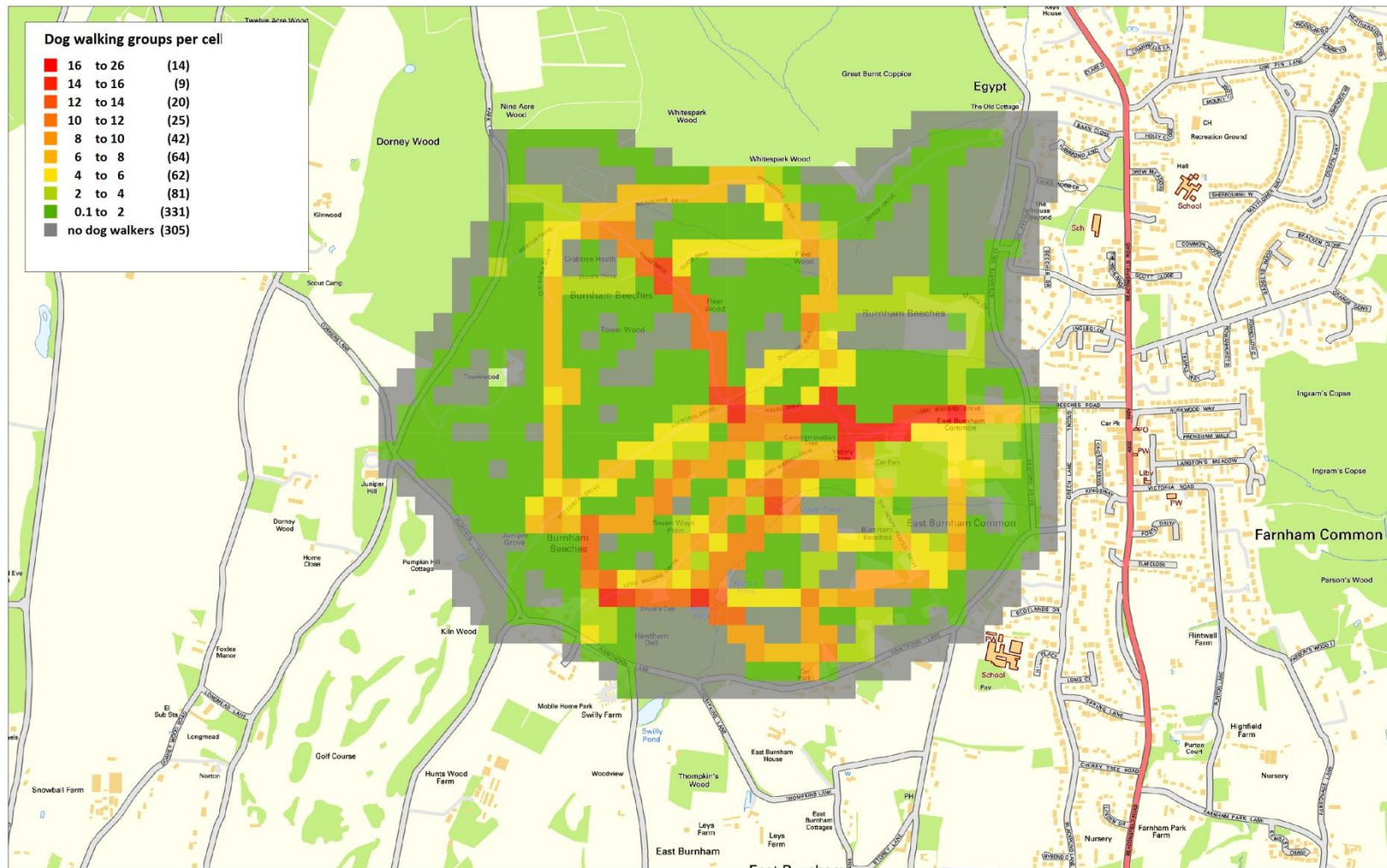
Burnham Beeches Visitor Survey



Map 4: Total people per 50m grid cell (all activities, adjusted for survey effort)

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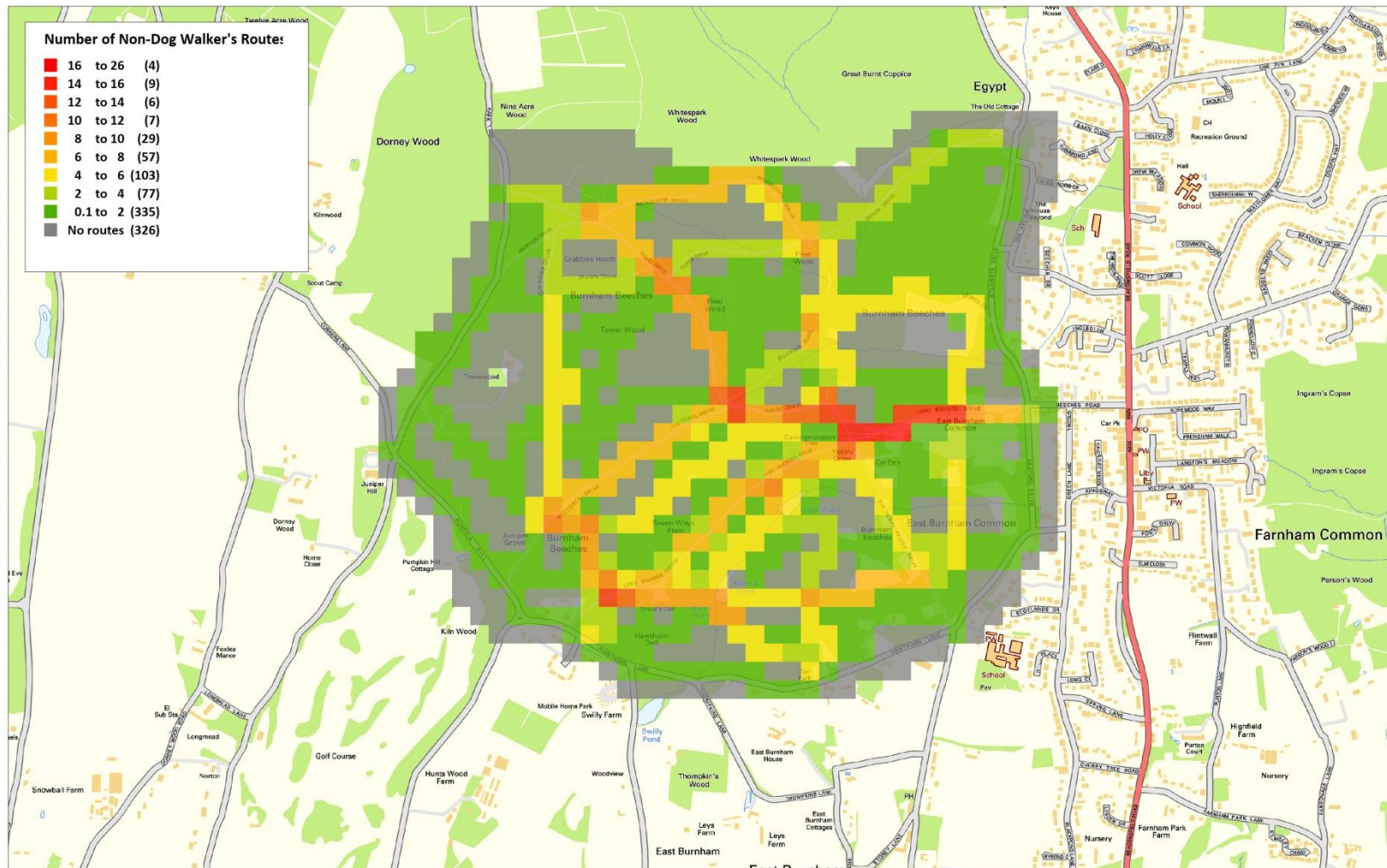
Burnham Beeches Visitor Survey



Map 5: Number of dog walker's routes per 50m grid cell (all activities, adjusted for survey effort)

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Map 6: Number of Non-dog walker's routes per 50m grid cell (all activities, adjusted for survey effort)

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6. Visitor Origins and Home Postcodes

Introduction and Overview

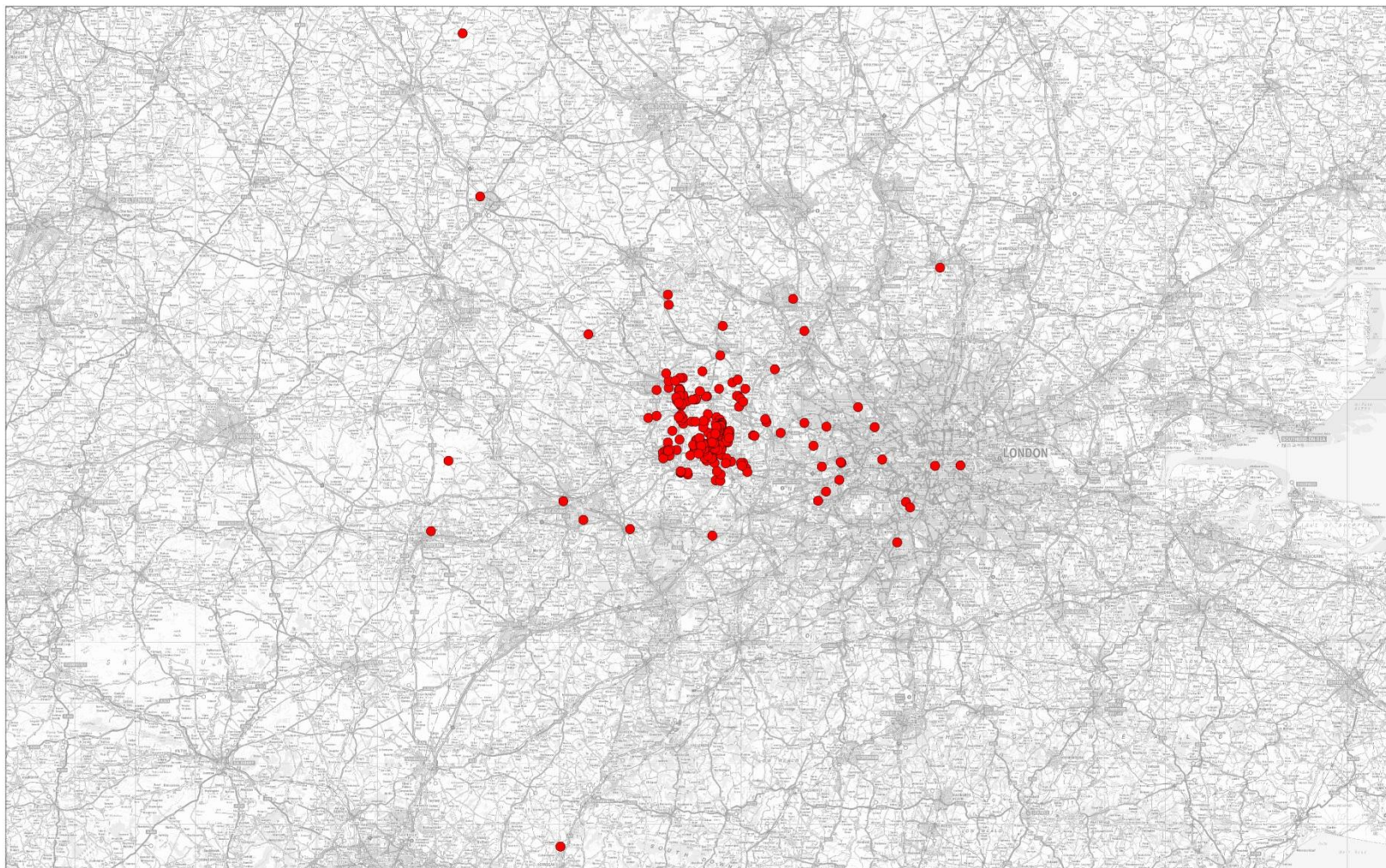
- 6.1 In total 314 postcodes were geocoded using the national postcode database. A further 13 responses could be mapped as respondents gave a settlement¹ and points were added manually to the approximate centre of the settlement. The remaining 32 (interviews either refused to give a postcode or weren't able to give one, for example one visitor was from Germany).
- 6.2 For the 327 data points reflecting visitor origins, distances from the home postcode to the survey point where interviewed ranged from 0.3km to 77.4km, with a mean of 6.6km and a median of 3.2km. Excluding those people on holiday in the area (N=10 geocoded postcodes) and those staying with friends (N=10 geocoded postcodes) the mean distance from home was 6.0km and median of 3.1km.
- 6.3 Map 6 shows all the visitor postcodes.

Distances and survey location

- 6.4 There were significant differences in the distances for survey locations (Kruskal-Wallis $H=19.55$ (3 df); $p<0.001$); visitors to the Dell (median 6.2km) lived the furthest afield, followed by the Main car-park (median 3.3km), and the Stag and the Moat (median for both 2.4km).

¹ These were: Farnham (1); Farnham Common (3); Burnham (1); Bray (1); Eton (1); Windsor (1); Slough (1); Cippenham (2) and Maidenhead (2).

Burnham Beeches Visitor Survey



Map 7: All geocoded postcodes

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Distances and activity

6.5 Map 7 shows visitor postcodes coloured by activity and shows a more limited geographical area than Map 6. There were also significant differences between activities (Kruskal-Wallis $H=47.34$, 5 df; $p<0.001$; Figure 5); joggers (median 1.3km, $N=12$) lived the closest; the median for dog walkers was 2.9km ($N=186$), while those visiting to walk (median = 5.3km; $N=91$) or for a family outing (median =5.5km, $N=27$) lived further away. Those undertaking ‘other activities’ lived the furthest from the site (median = 18.7km, $N=6$).

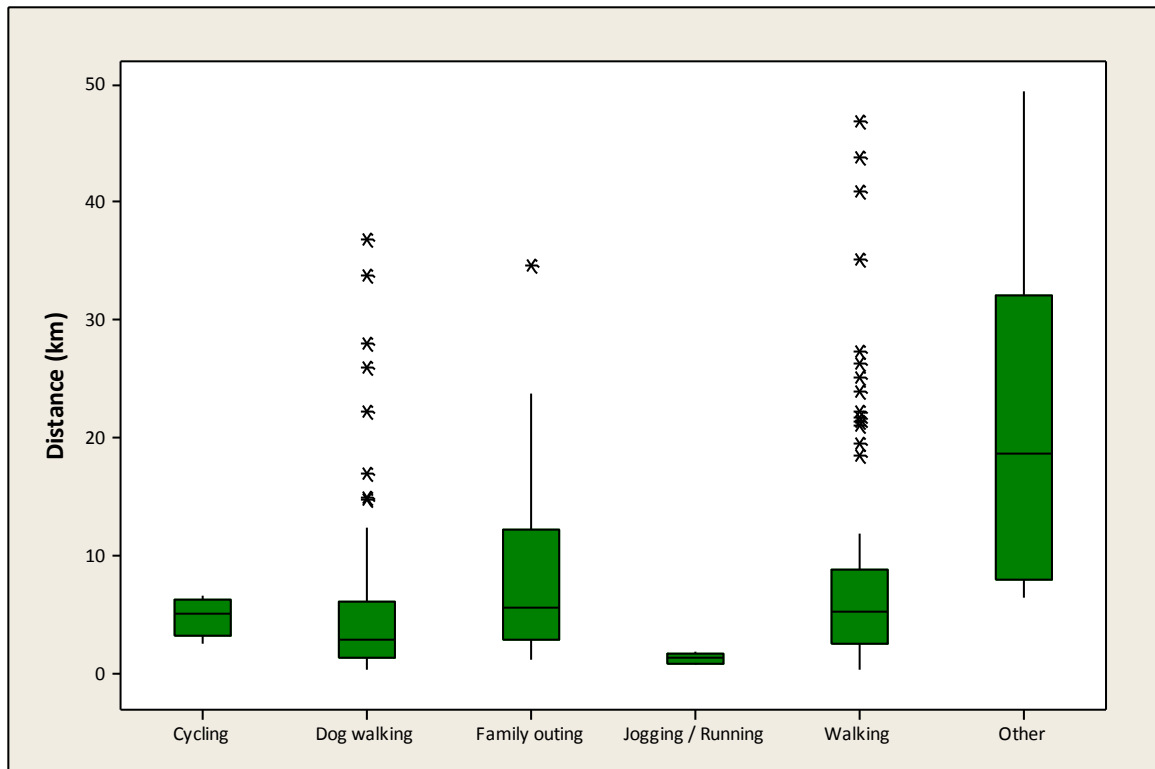
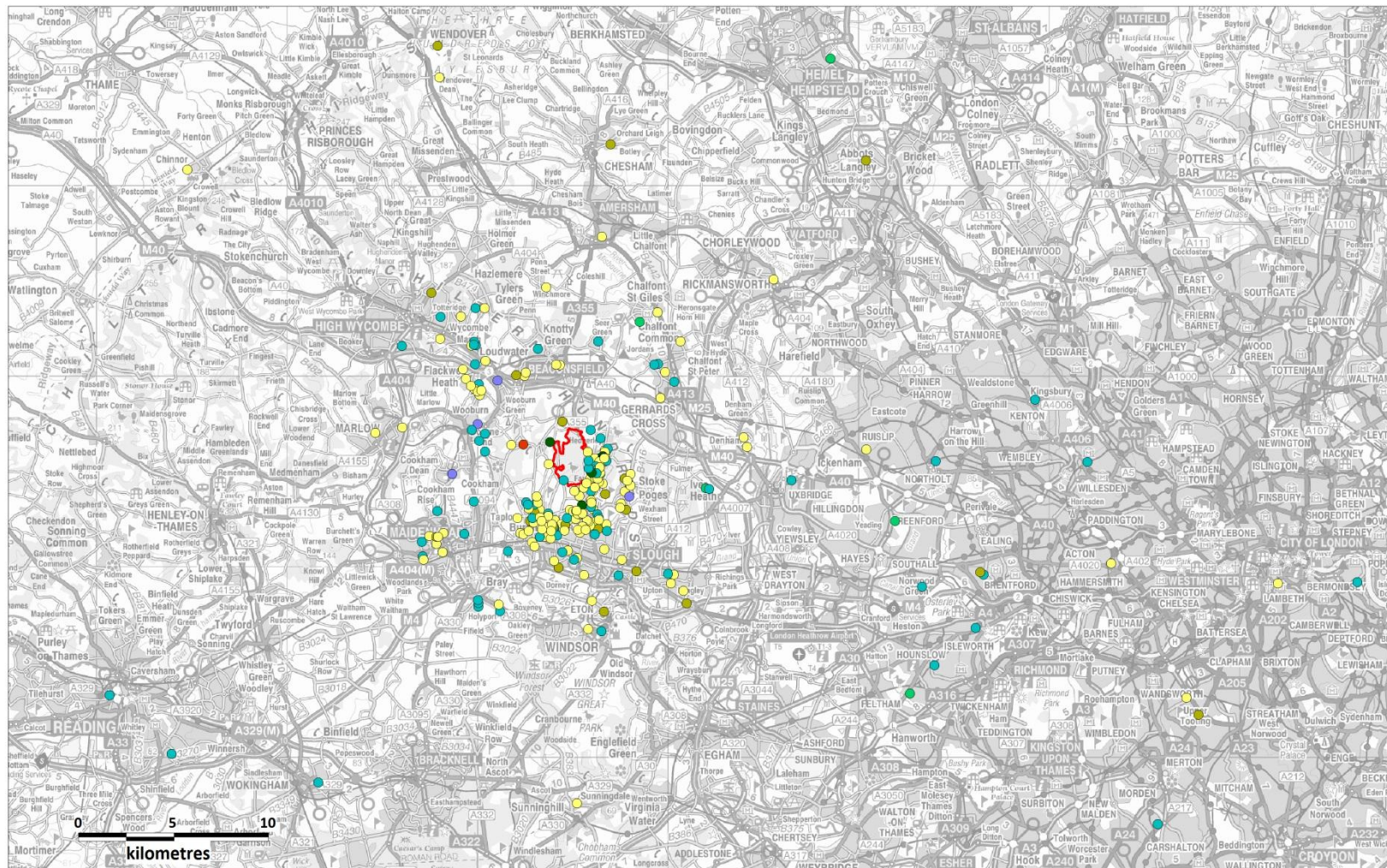


Figure 5: Distances (from home postcode to interview location) by activity. Note y axis truncated at 50km (3 postcodes were beyond this distance).

Burnham Beeches Visitor Survey



Map 8: Postcodes by activities

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- Commercial dog walking (1)
- Cycling (5)
- Dog walking (202)
- Family outing (32)
- Jogging / Running (12)
- Other (7)
- Walking (100)



SAC

Distances and season

6.6 There was no significant difference between seasons (Kruskal-Wallis $H = 0.05$, $1df$, $p=0.825$), with a median distance from home postcode to survey location of 3.2km in the summer (N=167) and 3.2km in the autumn (N=160). Looking at individual activities and differences between seasons (Figure 6), the distances from people’s home to the survey location were very similar between autumn and summer for dog walkers and walkers – who accounted for the majority of visitors. Those visiting for cycling and for family outings appeared to travel from further afield in the summer, but sample sizes were relatively small (5 interviews and 27 interviews).

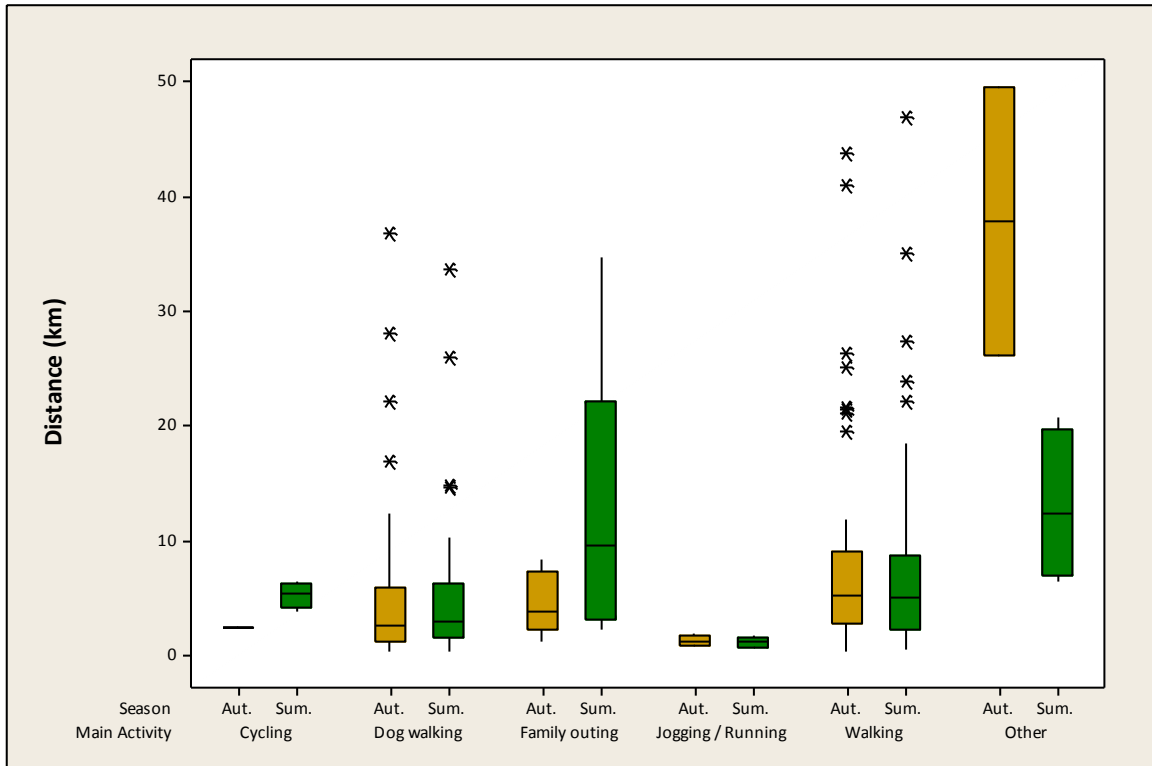


Figure 6: Distances (from home postcode to interview location) by activity and season (autumn in brown and summer in green). Note y axis truncated at 50km (3 postcodes were beyond this distance).

Distances and Frequency of Visit

6.7 Those interviewed who visited more frequently tended to live closer to Burnham Beeches than those who visited less frequently. Median distances (from home postcode to survey location) were successively larger for each frequency category (Figure 7) and ranged from 2.18km (those who visited at least three times per week) to 7.18km (those who visited less than once per month). Differences between groups were significant (Kruskal-Wallis $H=107.4$, $df = 5$, $p<0.001$).

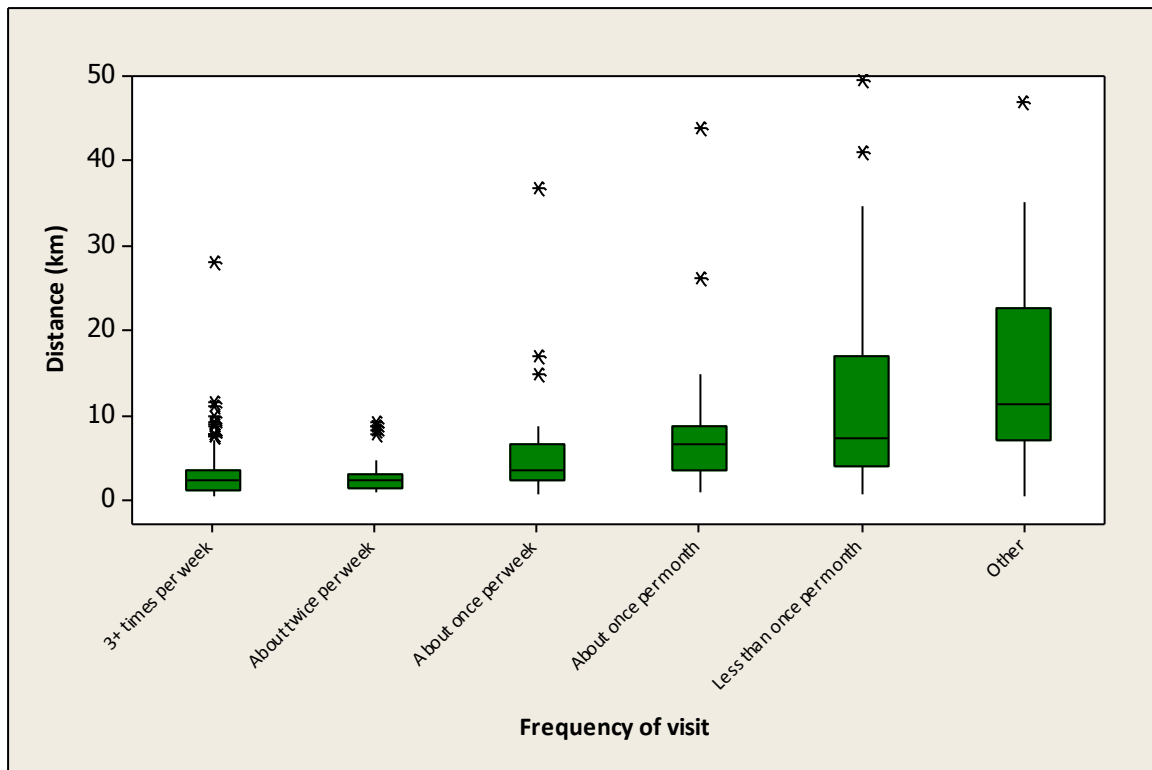
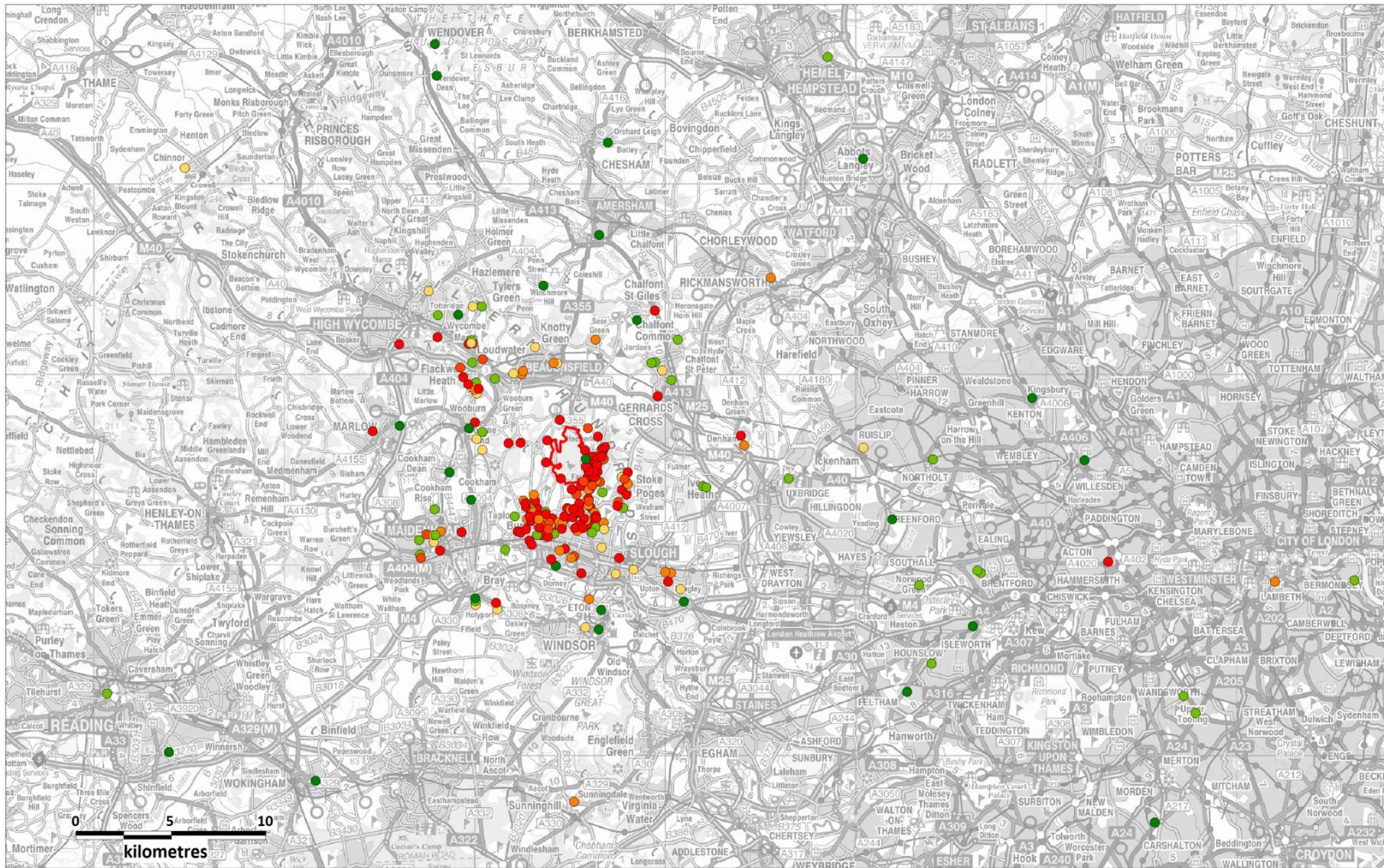


Figure 7: Distance from home postcode to interview location, in relation to frequency of visit. Note y axis truncated at 50km (3 postcodes were beyond this distance).

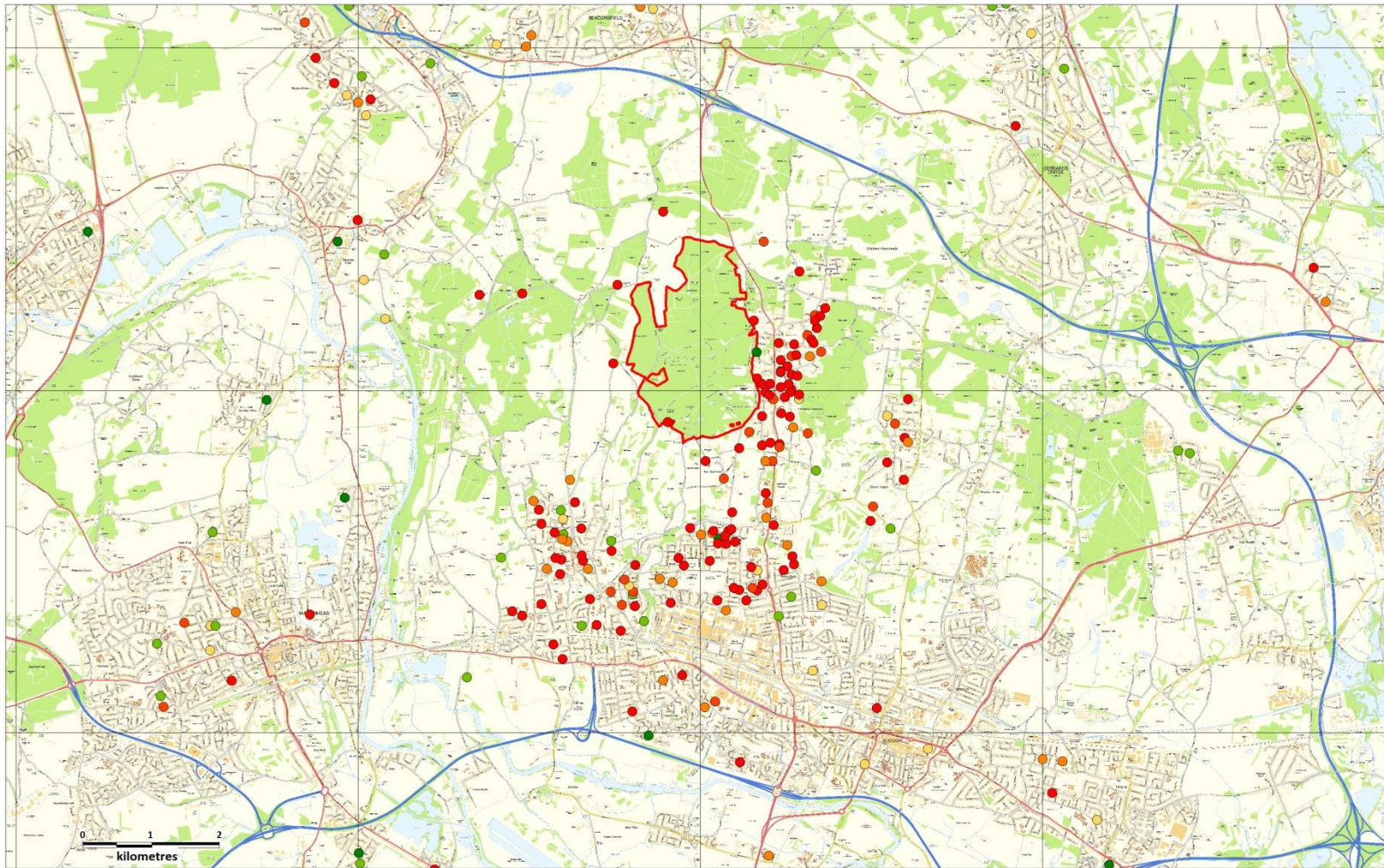
6.8 We show postcodes of interviewed visitors shaded to reflect their frequency of visit in Maps 8 (same scale as Map 7) and 9 (just area very local to Burnham Beeches). The concentration of frequent visitors in the local vicinity is clear.

Burnham Beeches Visitor Survey



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Burnham Beeches Visitor Survey



Map 10: Postcodes by frequency of visit, local area only

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- Three or more times per week (156)
- About twice a week (35)
- About once a week (44)
- About once per month (36)
- Less than once per month (54)
- Don't know / First visit/other (34)
- SAC

Settlements

6.9 We summarise the number of people interviewed from each settlement in Table 21. In total, 304 of the geocoded postcodes fell within settlement boundaries² (i.e. 23 geocoded postcodes were from rural areas outside settlements). Slough and Farnham Royal were by the most common home settlements, accounting for nearly two-thirds (62%) of geocoded interviews. Slough was the most common settlement for all activities apart from jogging, for which all eleven interviews were conducted with residents from Farnham Royal, highlighting a particularly local catchment for this activity.

² We defined settlements using the OS open source data for built up areas

Burnham Beeches Visitor Survey

Table 21: Number (%) of interviews with residents by settlement.

Settlement	Cycling	Dog walking	Family outing	Jogging / Running	Walking	Other	Total
Slough	1 (20)	65 (38)	10 (42)		22 (26)		98 (32)
Farnham Royal		58 (34)	2 (8)	11 (100)	19 (22)		90 (30)
Maidenhead		7 (4)	1 (4)		10 (12)		18 (6)
Bourne End/Flackwell Heath	1 (20)	9 (5)	1 (4)		4 (5)		15 (5)
High Wycombe	1 (20)	4 (2)	1 (4)		6 (7)		12 (4)
Stoke Poges	1 (20)	7 (4)	1 (4)				9 (3)
Beaconsfield		4 (2)	2 (8)		2 (2)		8 (3)
Chalfont St.Peter/Gerrards Cross		4 (2)			3 (4)		7 (2)
Ealing			1 (4)		3 (4)		4 (1)
Windsor/Eton		1 (1)	1 (4)		1 (1)		3 (1)
Brent					2 (2)		2 (1)
Chalfont St.Giles		1 (1)				1 (17)	2 (1)
Denham		2 (1)					2 (1)
Hazlemere/Tylers Green		1 (1)			1 (1)		2 (1)
Hillingdon		1 (1)				1 (17)	2 (1)
Hounslow					2 (2)		2 (1)
Iver/Iver Heath					1 (1)	1 (17)	2 (1)
Marlow		2 (1)					2 (1)
Reading					2 (2)		2 (1)
Southwark		1 (1)			1 (1)		2 (1)
Wandsworth		1 (1)	1 (4)				2 (1)
Amersham		1 (1)					1 (0)
Bicester			1 (4)				1 (0)
Chesham			1 (4)				1 (0)
Chinnor		1 (1)					1 (0)
Compton					1 (1)		1 (0)
Cookham	1 (20)						1 (0)
Hammersmith and Fulham		1 (1)					1 (0)
Hemel Hempstead						1 (17)	1 (0)
Hertford					1 (1)		1 (0)
Newbury						1 (17)	1 (0)
Richmond upon Thames						1 (17)	1 (0)
Rickmansworth		1 (1)					1 (0)
Seer Green					1 (1)		1 (0)
Sutton					1 (1)		1 (0)
Virginia Water		1 (1)					1 (0)
Waterlooville					1 (1)		1 (0)
Watford			1 (4)				1 (0)
Wokingham					1 (1)		1 (0)
No settlement		13 (7)	3 (11)	1 (8)	6 (7)		23 (7)
Total	5 (100)	186 (100)	27 (100)	12 (100)	91 (100)	6 (100)	327 (100)

Understanding impacts of new development

- 6.10 In order to understand how future development in the vicinity of Burnham Beeches may influence future visitor rates, it is necessary to understand how visitor rates change with distance from the site. Using 500m consecutive bands drawn around the SAC (out to a distance of 15km), we calculated the total number of interviews within each band and the total number of current residential properties.
- 6.11 The 15km distance band captured the majority of geocoded postcodes (295 postcodes, 90%), little different to the 10km band (290 postcodes, 89%). The five kilometre band encompassed 226 postcodes (69%).
- 6.12 The ratio of interviews to number of properties provides an indication of visit rate, and a plot of this visit rate with distance (Figure 8) shows that around 5km from the SAC the visit rate is relatively low. In other words, beyond 5km from the SAC boundary the number of visits made per house is low and the impact of new development will be relatively low (per new dwelling). Development within 4km of the SAC boundary will have a greater influence on visit rates.

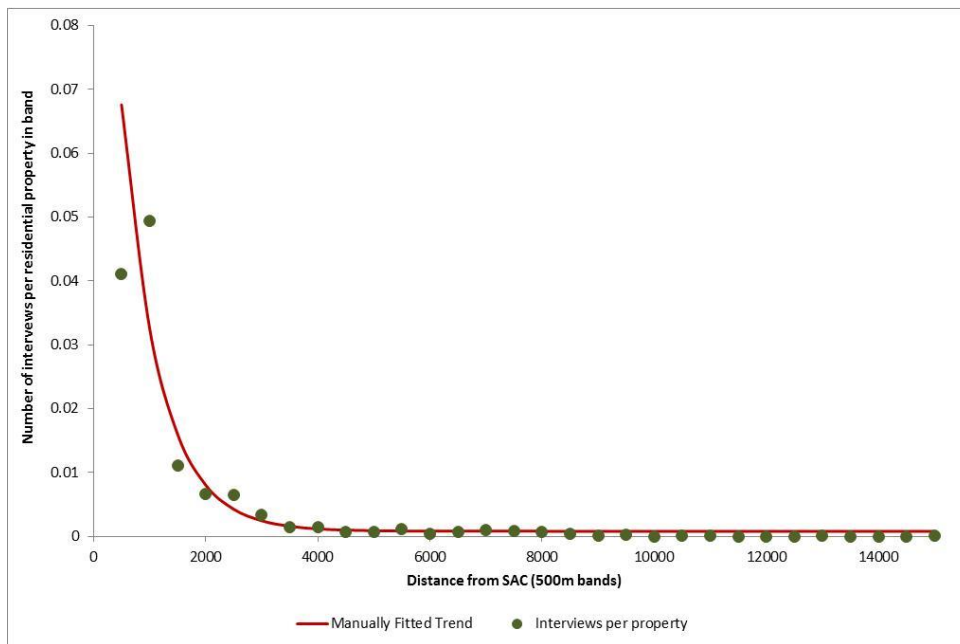


Figure 8: Visit rate in relation to distance. Visit rate calculated as number of interviews/number of residential properties in given distance band. Trend manually fitted by eye and from r^2 value. $Y=-0.14^{-1.48x}+0.008$. $r^2=0.80$

- 6.13 Using the visit rate curve shown in Figure 8 it is possible to estimate the relative changes in visitor rates as a result of development at different locations. The most recent annual total estimate for visitor numbers to Burnham Beeches is 585,000 visitors for the year 2010/11 (Wheater & Cook 2012). Our 15km distance band from the SAC encompassed 90% of the visitor postcodes in this survey, and (assuming group size to be constant with distance), then 527,752 visitors (90% of 585,000) would be expected to come from within 15km.

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6.14 Using the curve in Figure 8 and the figure of 527,752 visitors from within 15km, it is possible to estimate the number of visitors from each distance band and the number of visits per residential property.

Table 22: Distance bands from the SAC (500m bands) and visits per property, calculated using the curve in Figure 8 and the figure of 527,752 visitors from within 15km.

Distance band (km)	Existing residential properties	Visits per annum from band	% of total visits	Annual visits per property
0.5	1,241	95,061	16	76.6
1	749	27,729	5	37
1.5	1,614	29,274	5	18.1
2	3,187	29,090	5	9.1
2.5	6,471	31,248	5	4.8
3	5,251	14,587	2	2.8
3.5	7,503	13,501	2	1.8
4	8,879	11,832	2	1.3
4.5	10,868	12,061	2	1.1
5	11,296	11,336	2	1
5.5	10,763	10,255	2	1
6	9,936	9,227	2	0.9
6.5	7,293	6,688	1	0.9
7	9,725	8,865	2	0.9
7.5	11,250	10,226	2	0.9
8	15,813	14,354	2	0.9
8.5	18,123	16,440	3	0.9
9	14,100	12,786	2	0.9
9.5	11,199	10,154	2	0.9
10	12,656	11,474	2	0.9
10.5	13,567	12,300	2	0.9
11	14,456	13,105	2	0.9
11.5	20,950	18,993	3	0.9
12	15,666	14,202	2	0.9
12.5	13,404	12,152	2	0.9
13	11,914	10,801	2	0.9
13.5	9,099	8,249	1	0.9
14	12,877	11,674	2	0.9
14.5	17,987	16,306	3	0.9
15	26,235	23,784	4	0.9

6.15 Using the information above, it is possible to estimate the impact of development at different locations around Burnham Beeches. In Map 10 we show the location of different settlements in South Bucks and the labelled red dots represent hypothetical locations where we consider the impact of development. We have also – for comparison – included some locations (S-Z) in Slough, outside South Bucks. The map

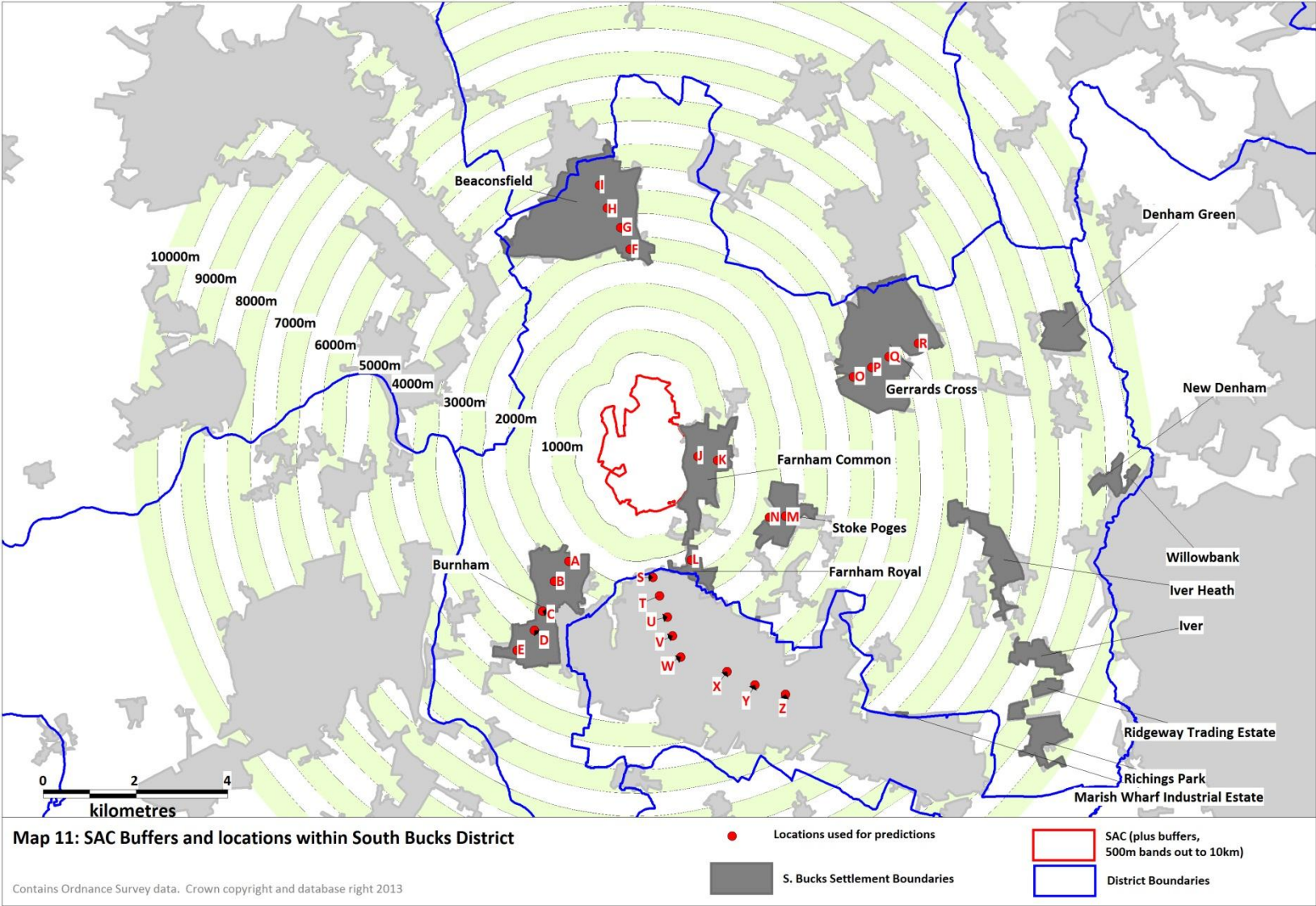
shows the buffers (500m bands) around the SAC (the pale green shading for the buffers represents alternate bands: 500-1000m; 1500-2000m; 2500-3000m etc.).

6.16 For each of the red dots we have considered the impact of 100 houses on the overall visitor rates, using the information in Table 22. We summarise the results in Table 23. It can be seen that development close to the SAC boundary (within 500m), such as the edge of Farnham Common, would have the biggest impact on visitor numbers, with an estimated 7,660 visitors per annum (i.e. 21 per day) resulting from 100 new dwellings.

Table 23: Hypothetical locations (see Map 10) and impacts of development (100 houses) at each. The % change column indicates the overall net increase in visitors (585,000 total per annum) as a result of the 100 houses.

Map Ref (Map 10)	Location	Distance Band (m)	Additional visitors per annum as a result of 100 new dwellings	% change
A	Burnham	2000	910	0.16
B	Burnham	2500	480	0.08
D	Burnham	3500	180	0.03
C	Burnham	3000	280	0.05
E	Burnham	4000	130	0.02
F	Beaconsfield	3000	280	0.05
G	Beaconsfield	3500	180	0.03
H	Beaconsfield	4000	130	0.02
I	Beaconsfield	4500	110	0.02
J	Farnham Common	500	7660	1.31
K	Farnham Common	1000	3700	0.63
L	Farnham Royal	1500	1810	0.31
M	Stoke Poges	2500	480	0.08
N	Stoke Poges	2000	910	0.16
O	Gerrards Cross	4000	130	0.02
P	Gerrards Cross	4500	110	0.02
Q	Gerrards Cross	5000	100	0.02
R	Gerrards Cross	5500	100	0.02
S	Slough	1500	1810	0.31
T	Slough	2000	910	0.16
U	Slough	2500	480	0.08
V	Slough	3000	280	0.05
W	Slough	3500	180	0.03
X	Slough	4000	130	0.02
Y	Slough	4500	110	0.02
Z	Slough	5000	100	0.02

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- 6.17 In Table 23 we have considered hypothetical locations and the potential change resulting from 100 new dwellings at each location. These are hypothetical and simply allow comparison of the impacts of development at different locations. In order to consider more realistic totals we have also generated Table 24 which is similar to Table 23. In Table 24 however we estimate visitor change as a result of new dwellings, using site specific totals provided by S. Bucks District Council, allowing an approximation of the total increase in access that may occur as a result of the development set out in South Bucks' Core Strategy. We have also included some locations from Slough³ as this helps to indicate the cumulative impact of development around Burnham Beeches SAC.
- 6.18 This cumulative development is also shown graphically in Figure 9, which shows the level of new housing (at different distance bands from the SPA) in comparison to current housing.
- 6.19 It can be seen that the levels of development set out in Table 24 for S. Bucks could generate around 4,500 additional visits to Burnham Beeches (the equivalent of around 12 people per day) and this equates to around a 1% increase in access at the site. The majority of this increase in access relates to development at Farnham Royal. The development locations listed for Slough are mostly locations relatively far from Burnham Beeches, however some parts of Slough, such as the area around Kennedy Park, fall within the 2000m distance band and therefore would have a disproportionate impact, compared to other parts of Slough.
- 6.20 These estimates are approximate. We have guessed locations for new development by simply placing a single point within existing settlements, visitor totals to Burnham Beeches are from 2010/11 while housing data is more recent (2013). Levels of new housing have been provided by S. Bucks but these may change over time.

³ We have selected some locations from the 2010 site allocations document where significant numbers of residential properties are set out and have used the figures from the report for the number of dwellings [http://static.slough.gov.uk/downloads/LDF_63_Site_Allocations_DPD_November_2010\(1\).pdf](http://static.slough.gov.uk/downloads/LDF_63_Site_Allocations_DPD_November_2010(1).pdf)

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Table 24: Predictions of changes in visitor numbers at Burnham Beeches arising from particular levels of development (provided by S. Bucks Council or taken from Slough 2010 site allocations DPD). We have assumed development would be within a single distance band for each settlement and have used the the lowest distance band that overlaps a significant part of the settlement).

Location	Distance band used	Dwellings	Additional visitors per annum	% change
Beaconsfield	3000	101	283	0.05
Burnham	2000	22	200	0.03
Denham	8500	43	39	0.01
Dorney	6000	1	1	<0.01
Farnham Royal	500	42	3217	0.55
Fulmer	5000	6	6	<0.01
Gerrards Cross	4500	60	66	0.01
Hedgerley	1500	2	36	0.01
Iver/Iver Heath	6500	60	54	0.01
Stoke Poges	2500	15	72	0.01
Taplow	5000	183	183	0.03
Wexham	4500	17	19	<0.01
Wilton Park, Beaconsfield	4500	300	330	0.06
Total (S. Bucks)		852	4,506	0.77
Kennedy Park	2000	150	910	0.16
Cippenham, Phase 4	4500	127	110	0.02
Heart of Slough	4500	1598	110	0.02
Langley	7500	123	90	0.02
Total (selected Slough locations)		1,998	3,374	0.57

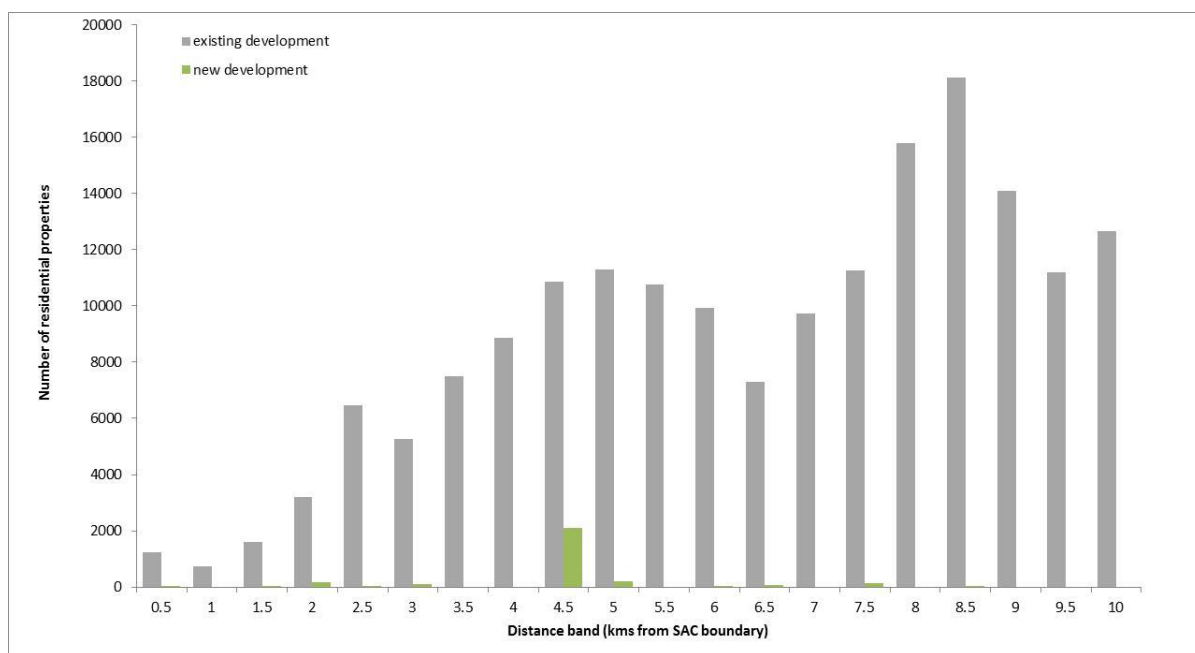


Figure 9: Levels of current housing and potential new housing (as set out in Table 24) in relation to distance from SAC

7. Responses relating to the management of dogs at Burnham Beeches

7.1 In this section we focus on the second part of the questionnaire and the responses of interviewees to questions relating to the management of dogs at Burnham Beeches.

Overview of visitor data for dog walking visitor groups

7.2 In total the face to face visitor surveys captured visitor information from 359 groups and their 319 dogs (paragraph 4.2). Just over half (56%) of these interviewed groups stated the main activity they were undertaking during their visit was dog walking (paragraph 4.4 and Table 4). A higher proportion of interviewed groups were dog walking (31%) in the Summer in comparison to the proportion of interviewed dog walking groups (25%) from the Autumn surveys (5.1 and Table 7). The majority of dog walking visitor groups (88%) reached Burnham Beeches by car (Table 29). Overall 96% of interviewed dog walking visitor groups were on a day trip/short visit and had travelled from home (Table 28) meaning that the majority of interviewed dog walking groups lived locally.

7.3 The visit duration for the majority (60%) of dog walking groups was between 30 minutes and an hour (paragraph 4.8 and Table 6) and most (63%) dog walking groups stated they made their visits three times a week or more (paragraph 4.11 and Table 8).

7.4 Out of all the interviewed visitors at Burnham Beeches just over half (55%) were female and 45% were male. A higher proportion of interviewed dog walking visitors were female -nearly two thirds (63%) and just over a third (37%) were male whereas a higher proportion of males (56%) were interviewed undertaking non dog walking activities in comparison to females (44%).

7.5 Appendix 2 contains some summary tables for various interview responses for dog walkers only, and some comparisons are also provided for non-dog walkers.

Visitor responses to dog managements questions

7.6 In Table 25 we summarise visitor responses to the difference management options and Table 26 considers only the responses that were supportive of a particular management option and summarises the proportion of the site that were proposed. Figure 10 provides a summary plot of the responses to the five main management options.

Table 25: Responses of visitor groups to survey questions about the management of dogs at Burnham Beeches.

Q16) Should dog owners be required to pick up and dispose of their dogs' waste correctly on parts of the site?				
Main activity	Don't know/Not sure	No	Yes	Total
Dog walkers	1 (0)	3 (1)	199 (98)	203 (100)
Other activities	0 (0)	0 (0)	156 (100)	156 (100)
All	1 (0)	3 (1)	355 (99)	359 (100)
Q18) Should areas be designated where dogs must be put on a lead if requested and owners required to comply?				
Main activity	Don't know / Not sure	No	Yes	Total
Dog walkers	7 (3)	37 (18)	159 (78)	203 (100)
Other activities	8 (5)	13 (8)	135 (87)	156 (100)
All	15 (4)	50 (14)	294 (82)	359 (100)
Q20) Should areas be designated where dogs must be kept on leads at all times and owners required to comply?				
Main activity	Don't know / Not sure	No	Yes	Total
Dog walkers	12 (6)	103 (51)	88 (43)	203 (100)
Other activities	14 (9)	37 (24)	105 (67)	156 (100)
All	26 (7)	140 (39)	193 (54)	359 (100)
Q22) Should areas be designated at Burnham Beeches where dogs are not allowed at all?				
Main activity	Don't know / Not sure	No	Yes	Total
Dog walkers	6 (3)	133 (66)	62 (31)	201 (100)
Other activities	10 (6)	75 (48)	70 (45)	155 (100)
All	16 (4)	208 (58)	132 (37)	356 (100)
Q24) Should there be a maximum number of dogs that an individual dog walker can walk?				
Main activity	Don't know / Not sure	No	Yes	Total
Dog walkers	23 (11)	55 (27)	125 (62)	203 (100)
Other activities	9 (6)	33 (21)	112 (73)	154 (100)
All	32 (9)	88 (25)	237 (66)	357 (100)

Table 26: Response of visitors who supported possible dog management options categorised by the proportion of site they thought it should be applied and further categorised by activity either ‘dog walking’ or ‘all other activities’ (i.e. not dog walking). Small rounding errors may occur with the % values.

Area(s) of Burnham Beeches that owners should be required to pick up and dispose of their dogs waste correctly (for those respondents who supported the measure)				
Activity	All of site	Part of site	Don't know	Total
Dog walkers	160 (81)	37 (19)	0 (0)	197 (100)
All other activities	149 (96)	7 (4)	0 (0)	156 (100)
Total	309 (88)	44 (12)	0 (0)	353 (100)
Area(s) of Burnham Beeches where dogs on lead if requested (for those respondents who supported the measure)				
Activity	All of site	Part of site	Don't know	Total
Dog walkers	57 (36)	95 (60)	6 (4)	158 (100)
All other activities	70 (52)	57 (42)	8 (6)	135 (100)
Total	127 (43)	152 (52)	14 (5)	293 (100)
Area(s) of Burnham Beeches where dogs must be kept on a lead at all times and owners required to comply (for those respondents who supported the measure)				
Activity	All of the site	Part of the site	Don't know	Total
Dog walkers	7 (8)	78 (89)	3 (9)	88 (100)
All other activities	16 (15)	80 (76)	9 (15)	105 (100)
Total	23 (12)	158 (82)	12 (6)	193 (100)
Area(s) of Burnham Beeches where dogs are not allowed at all (for those respondents who supported the measure)				
Activity	All of the site	Part of the site	Don't know	Total
Dog walkers	1 (2)	59 (95)	2 (3)	62 (100)
All other activities	4 (6)	58 (83)	8 (11)	70 (100)
Total	5 (4)	117 (89)	10 (8)	132 (100)

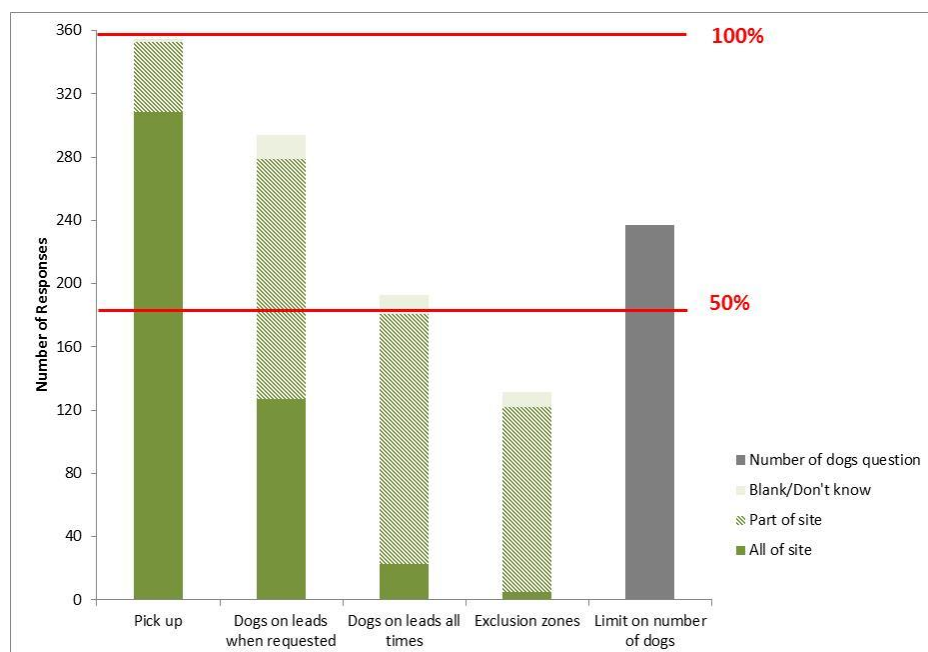


Figure 10: Summary plot of responses to dog management question. Columns indicate number of interview responses that were “yes”, with the green shading then indicating the proportion of responses that indicated a part or all of the site.

- 7.7 There was clear support (99% of the responses) from both dog walking and non-dog walking visitor groups to require dog owners to pick up and dispose of their dogs waste correctly (Table 25). In total 88% of visitor responses which supported this dog management option indicated it should be applied to the whole site (Table 26). Of the 44 people who indicated that the measure should be applied to part of the site only, 16 indicated a percentage and these ranged from 30% to 90% of the site. Sixteen interviewees favoured a part of the site but, rather than specify a percentage indicated that the measure should be applied to paths, main tracks or 'open areas'. A further eleven interviewees indicated that the measure should not be applied to the woodland or deep woods.
- 7.8 There was also clear support (82% of the responses) that there should be designated areas where dogs must be put on a lead if requested to do so and the owners required to comply (Table 25). Interestingly there was relatively little difference in the proportion of visitors who supported the measure that were dog walking in comparison to the visitor groups who were not dog walking (Table 25). In terms of the area(s) where this should be applied, all of the site was favoured by 127 interviewees (43% of those that said supported the implementation of the measure, 35% of all interviewees). Forty-three respondents that favoured part of the site indicated a particular percentage, these ranged from 5-80%. The most common response was 50% (10 interviewees). Many interviewees struggled to give a percentage and instead indicated particular parts of the site such as the café/picnic area (50 interviewees), where there are grazing animals (49 interviewees), around play areas (16 interviewees), or in wildlife/conservation areas (4 interviewees).
- 7.9 The majority of visitor responses (193 interviewees, 54%) supported the dog management option of designated areas where dog must be kept on a lead at all times and owners required to comply. A higher proportion of non-dog walking visitor groups supported this measure (105 compared to 37) than dog walking groups (88 groups compared to 103). Of the 193 in support of the approach, the majority favoured that the measure should be applied to part of the site only (158 interviewees, 82% of those in favour, 44% of all interviewees). A further 6% of all people interviewed indicated that this should be applied across the whole site. Of those that suggested part of the site for the measure, 57 indicated a particular percentage, ranging from 5-80%. The most common percentage given was 50%, with seventeen people giving this value. The next most common percentage given was 20% (14 interviewees). Rather than give a set percentage many respondents indicated particular areas such as the cafe/picnic area (50 interviewees), play area/around children (21 interviewees), around livestock (12 interviewees) or where conservation interest (such as nesting birds) (7 interviewees). Fifteen respondents simply responded that the measure should simply be applied if good reasons.
- 7.10 The majority of interviewees (58%) did not support the idea of exclusion zones where no dogs should be allowed at all. There were 132 interviewees (37%) who were in support of this approach and of these, five (4% of those in favour of the measure; 1% of all interviewees) indicated that it should be applied to the whole site. For those that

suggested part of the site, 55 interviewees gave a particular percentage. These percentages ranged from 5% to 90% of the site. The most commonly given response was 10% (13 interviewees), and a further 9 interviewees suggested 5%. Relatively few (13 interviewees) in favour of this measure for part of the site felt that it should be applied to 50% or more of the site. Many interviewees did not feel able to give a particular percentage, but instead indicated a part of the site, such as the café/picnic areas (31 interviewees) or children’s play area (13 interviewees).

7.11 Question 24 addressed whether interviewees felt there should be a maximum number of dogs that an individual dog walker could walk and 66% of all visitor responses indicated ‘yes’ (Table 25). Visitor groups were then asked the maximum number of dogs they felt they would like to see established per visitor and 39% stated 3 and 37% stated 4 (Table 27).

Table 27: Response of visitors when asked what the maximum number of dogs per visitor they would like to see established from those who gave a number or comment

Maximum number of dogs per visitor interviewees would like to see established	Response total (as %)
2	33 (16)
3	82 (39)
4	77 (37)
5	16 (8)
Other	2 (<1)
Total	210 (100)

9. Discussion

General Approach

- 9.1 The survey includes a total of 359 interviews, which represents an adequate sample size to consider the visitor origins and views of visitors. It is notable that 49 people were approached that had already been interviewed, indicating that a reasonably high proportion of regular local visitors had been interviewed.
- 9.2 The visitor survey involved survey work from a range of different months, covering included school holidays and periods outside school holidays and over the summer as well as late autumn. It therefore captures access patterns from a range of time periods. Survey effort was focussed at car-parks (though not entirely so), and so may have missed some direct use from local residents who – if on a bike or on foot and visiting from home – may not go through the main car-parks. Users such as cyclists and joggers – who may also avoid main car-parks and also travel past at speed are less likely to be interviewed than those who linger in the car-park. It may therefore be the case that the survey includes a slight bias towards dog walkers and car-borne visitors.

Visitor intensity maps

- 9.3 It is disappointing the GPS units were not successful, and there may therefore be merit (at some point in the future) collecting some further data on routes in the period December – March, when leaves are less likely to cause problems with the GPS receivers picking up the satellite signal.
- 9.4 The maps provide an indication of where people went and the route data shows of how far people are travelling within the site, and what ‘area’ of the site is necessary to provide enough space for their activity. There are around 220ha of publicly accessible open space at Burnham Beeches. It is therefore interesting to note that the average area required for all the people interviewed was the equivalent of 12% of the area with public access. Looking at the data for dog walkers, 75% of dog walkers routes were 32.05ha or less, indicating that the majority of dog walks at Burnham Beeches require less than 15% of the site.
- 9.5 The maps of visitor intensity do clearly show the focus of use around the main car-park, visitor centre and café. The maps indicate that virtually no parts of the site are not visited – while the eye is drawn to the darker red, there is actually very little of the site in Maps 3 and 4, that is the darkest green indicating no access at all. There are a total of 953 grid cells shown in the spatial distribution maps – 204 cells (21%) had no routes crossing them, however most of these are cells around the very edge of the site (many cells only partly clip the boundary of the site) and therefore the actual proportion of the site with no footfall is very small.

Visitor Rates and Development

- 9.6 We have estimated impacts of new development on visitor rates. These estimates are approximate and based on a number of assumptions. For example we assume that visitor rates decline with distance from the SAC, and do not take into account other

factors besides distance. We assume that people living at a given distance from Burnham Beeches SAC in any direction are equally likely to visit the SAC. Other factors besides distance from the SAC may be important, for example the travel time or the presence of other green space sites nearby. Housing in different locations may be of a different type and this may have some impact on who lives there and what they do in their leisure time.

- 9.7 The visitor results presented here do not include data on total number of visitors. The survey was not designed to derive such data and so instead we use annual estimates from a different survey (Wheater & Cook 2012). These may of course be an underestimate given that they are based on data from 2010/11.
- 9.8 Our estimates of visitor rates are nonetheless broadly in line with national data. For example the latest results from national monitoring of access patterns suggests that adults living in South Bucks make, on average, 63 visits to the countryside per annum (TNS Research International 2013). Our estimate of visits per household to Burnham Beeches for people living within 500m is 76.6 person visits per household. Given that most households are larger than one person and that households will visit other sites besides those that are really local, 76.6 visits per household is not unreasonable.
- 9.9 We estimate the impacts of new development at a range of different locations. These estimates are for 100 houses, allowing direct comparison between locations. The percentage changes appear quite small, as Burnham Beeches is already a busy site and there is already a large population living locally who visit the site. Burnham Beeches is also a relatively small site, so relatively small increases in access are still likely to be discernable at the site (there are only the three main car-parks/access points). Table 23 is also deceptive in that we it does not consider the cumulative, in-combination impact of development occurring at many locations. Gradual change, involving new dwellings at multiple locations, will over time result in increases in access. The results suggest that, in particular, development within 5km is likely to result in changes in access levels. Within that 5km radius there is however a marked change with distance. A development of 100 dwellings at 5km would have the same impact (in terms of access to Burnham Beeches SAC) as 76.9 dwellings at 4km; as 35.7 dwellings at 3km; as 11 dwellings at 2km; as 2.7 dwellings at 1km from the SAC boundary and as 1.3 dwellings within 500m. In terms of spatial planning and impacts to Burnham Beeches SAC, these results would suggest that consideration needs to focus on all development in areas directly adjacent to the SAC, and that large developments within 5km are also of relevance.

Dog Walkers and Dog Control Orders

- 9.10 One of the key aims of the survey was to gather information to underpin future consideration of approaches to the management of dogs at Burnham Beeches. Dog walkers accounted for a high proportion of the interviews (56%), and it is useful to consider this group separately and compare with other users.

- 9.11 Nearly all interviewed dog walking visitor groups were aware of the high nature conservation value of Burnham Beeches (paragraph 5.28 and Table 23). Interestingly no interviewed dog walking visitor groups stated they were drawn to Burnham Beeches for its wildlife interest or the old trees, even though 94% of dog walking groups were aware of the high nature conservation value of the site (Table 30). The most frequency cited reason (50% of the responses) with the most influence as to why dog walking visitor groups made their visit to Burnham Beeches was because it was close to home (Table 30) and four additional responses cited that ‘close to work’ was the most influencing factor in making a visit to Burnham Beeches (Table 31). No specific reference was made to the presence of the trees or the autumn foliage (Table 31) from dog walking visitor groups. This isn’t to say the area isn’t valued by the interviewed dog walking groups, but it is interesting that neither the flora or fauna of Burnham Beeches was mentioned as a reason (or ‘other’ reason) which had the most influence over their choice to visit Burnham Beeches specifically, rather than another local site. In contrast, 7% of the responses from non-dog walking visitor groups specifically referenced either the veteran trees or the wildlife as reason why Burnham Beeches was visited over another local site (Table 32) and several of the ‘other’ reasons also referred to these features (Autumn foliage, look at veteran trees, nature photography) (Table 33) suggesting more of the non- dog walking visitors to the site appreciate and engage with nature conservation interest at Burnham Beeches and that these features are clearly a drawing some of these visitor groups.
- 9.12 It does seem that there is a clear distinction between what draws the different visitor groups to Burnham Beeches. The most popular responses from dog walking visitor groups which had the most influence over why they specifically chose to visit Burnham over another local site were the proximity to home, other reasons (of which none specifically link to wildlife features) and the ability to let the dog off the lead/good for dog (Table 30 and Table 31). Whereas equivalent responses from non- dog walking visitor groups were also close to home (but a lower proportions), ‘other’ (which included references to the wildlife interest of the site and the scenery (Table 32 and Table 33).
- 9.13 The responses to the questions about introducing dog control orders indicated that most dog walkers were aware of potential impacts of their pets to other users, but it appeared few mentioned nature conservation impacts. For example most of the free text responses relating to picking up suggested that dog control orders (relating to picking) up should only be applied along paths, open areas etc., and not in the woods. Similarly the free text relating to dogs on leads seemed to suggest a focus for the café, picnic areas and areas with children, rather than areas important for their nature conservation interest.

10. References

Liley, D., Hoskin, R., Fearnley, H., White, J. & Underhill-Day, J. (2012) *Urban Development and Burnham Beeches SAC*. Footprint Ecology.

TNS Research International. (2013) *Monitor of Engagement with the Natural Environment: The National Survey on People and the Natural Environment. Annual Report from the 2012-13 Survey*. Natural England Commissioned Research Report, Natural England.

Wheater, C.P. & Cook, P.A. (2003) *Burnham Beeches Visitor Survey 2002/2003*. City of London.

Wheater, C.P. & Cook, P.A. (2012) *Burnham Beeches Visitor Survey 2010/2011*. City of London.

Appendix 1: Survey Questionnaire

Burnham Beeches Visitor Survey Questionnaire

Good am/pm. Please could you spare me a few minutes to take part in a short survey about your visit today. The survey is being conducted by the Corporation of London to understand how and why people visit this National Nature Reserve and inform future management of access at Burnham Beeches.

1. Which of the following best describes your situation today?

Read list, tick only one.

- On a day trip / short visit and travelled from home
- On a day trip / short visit and staying with friends or family
- On holiday in the area, staying away from home
- Other, please detail

Further details:

2. What is the main activity you are undertaking today? Tick closest answer. Do not prompt. Single response only.

- Dog walking
- Commercial dog walking
- Walking
- Jogging / Running
- Cycling
- Family outing
- Other, please detail

Further details:

3. **How long have you spent / will you spend in the area today? Do not prompt. Single response only.**

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

4. **How frequently do you tend to visit this Burnham Beeches? Tick closest answer. Do not prompt. Single response only.**

- Three or more times per week
- About twice a week
- About once a week
- About once per month
- Less than once per month
- Don't know / First visit
- Other, please detail

Further details:

5. **Do you tend to visit Burnham Beeches at a certain time of day? Tick closest answer. Do not prompt. Multiple responses ok.**

- Early morning (before 9am)
- Late morning (between 9am and 12)
- Early afternoon (between 12 and 2pm)
- Late afternoon (between 2 and 4pm)
- Evening (after 4pm)
- Varies / Don't know / First visit

6. **Do you tend to visit Burnham Beeches more at a particular time of year for [insert given activity]? Tick closest answer. Do not prompt. Multiple responses ok.**

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

7. **How did you get here today? What form of transport did you use? Tick closest answer. Do not prompt. Single response only.**

- Car / Van
- On foot
- Bicycle
- Other, please detail

Further details:

8. **Why did you choose to specifically visit Burnham Beeches today rather than another local site?** *Tick closest answer. Do not prompt. Multiple responses ok. Which would you say had the most influence on your choice of site to visit today?* *Tick closest answer. Do not prompt. Single response only.*

	<u>Reasons</u>	<u>Most influence</u>
Close to home	<input type="checkbox"/>	<input type="checkbox"/>
Closest place to take the dog	<input type="checkbox"/>	<input type="checkbox"/>
Good / easy / free parking	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife interest	<input type="checkbox"/>	<input type="checkbox"/>
Trees / old trees	<input type="checkbox"/>	<input type="checkbox"/>
Habit / familiarity	<input type="checkbox"/>	<input type="checkbox"/>
Cafe	<input type="checkbox"/>	<input type="checkbox"/>
Scenery / variety of views	<input type="checkbox"/>	<input type="checkbox"/>
Ability to let dog off lead / good for dog	<input type="checkbox"/>	<input type="checkbox"/>
Nearest place to let dog safely off lead	<input type="checkbox"/>	<input type="checkbox"/>
Large site	<input type="checkbox"/>	<input type="checkbox"/>
Rural feel	<input type="checkbox"/>	<input type="checkbox"/>
Good location to meet friends / family	<input type="checkbox"/>	<input type="checkbox"/>
Good for children	<input type="checkbox"/>	<input type="checkbox"/>
Choice of routes / circular routes / length	<input type="checkbox"/>	<input type="checkbox"/>
Suitability of area given weather	<input type="checkbox"/>	<input type="checkbox"/>
Can walk from home / don't need car	<input type="checkbox"/>	<input type="checkbox"/>
Feels safe	<input type="checkbox"/>	<input type="checkbox"/>
Other, please detail	<input type="checkbox"/>	<input type="checkbox"/>

Now I would like to ask you about your route today. Looking at the area shown on the map, can you show me where you started your walk or visit today, the finish point and your route please. Probe to ensure route is accurately documented. Use **P** to indicate where the visitor parked, **E** to indicate start point and **X** to indicate the exit. Mark the route with a line; a solid line for actual route and a dotted line for expected or remaining route.

9. **Is / was your route today reflective of your usual route 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

10. What, if anything, influenced your choice of route here today?

Tick closest answer. Do not prompt. Multiple responses ok. Use free text box for additional influences and / or detail.

- Weather
- Daylight
- Time available
- Other users
- Activity undertaken
- Shade
- Wanting to be near water
- Information / leaflets etc
- Previous knowledge / experience
- Group members (eg, kids / less able)
- Other, please detail

Further details:

11. Aside from this location, do you visit any other places for similar purposes as you visited here today? If Yes, which 3 locations do you visit most often? Tick closest answer or enter names if not listed. Do not prompt. Multiple responses ok (up to 3).

- Black Park
- Langley Park
- Clivedon
- Stoke Common
- Dorney Lake
- Littleworth Common
- River Thames / Jubilee River
- Colne Valley / Denham Country Park
- Other, please detail

Other location (1)

Other location (2)

Other location (3)

12. Are you currently a member of any of the following organisations? *Read list. Multiple ok.*

- The National Trust
- The RSPB
- The Woodland Trust
- A Wildlife Trust
- The Dogs Trust
- The Kennel Club

13. Were you aware that Burnham Beeches is of high nature conservation value? *Tick closest answer. Do not prompt. Single response only.*

- Yes
- No
- Not sure / other

Further details:

14. What is your full home postcode? *(this is the most important piece of information required from the survey, please make every effort to record correctly).*

If visitor is unable or refuses to give postcode: What is the name of the nearest village / town?

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

15. How many people in your party fall into the following age categories? *Enter the number of people per category.*

24 or under	<input type="text"/>
25 - 35	<input type="text"/>
36 - 45	<input type="text"/>
46 - 55	<input type="text"/>
56 - 65	<input type="text"/>
66+	<input type="text"/>

The City of London is reviewing how dogs should be managed at Burnham Beeches and various legal options such as dog control orders (which allow fines to be levied) are being considered. It is estimated that there are around 210,000 dog 'visits' per year at Burnham Beeches. The City of London would like your help with making these decisions. The rest of the questionnaire is therefore about the management of dogs at Burnham Beeches.

16. **Should dog owners be required to pick up and dispose of their dogs' waste correctly on parts of the site?** *Do not prompt. Single response only.*

- Yes
- No
- Don't know / Not sure

17. *If answer to Q16 is yes:* **Roughly, over what proportion of the site should this be applied?** *Tick closest answer. Do not prompt. Single response only.*

- All of the site
- None of the site
- Don't know / Not sure
- Part of the site, record response as a percentage

Further details:

18. **Should areas be designated where dogs must be put on a lead if requested and owners required to comply?** *Do not prompt. Single response only.*

- Yes
- No
- Don't know / Not sure

19. *If answer to Q18 is yes:* **Roughly, over what proportion of the site should this be applied?** *Tick closest answer. Do not prompt. Single response only.*

- All of the site
- None of the site
- Don't know / Not sure
- Part of the site, record response as a percentage

Further details:

20. **Should areas be designated where dogs must be kept on leads at all times and owners required to comply?** *Do not prompt. Single response only.*

- Yes
- No
- Don't know / Not sure

21. *If answer to Q20 is yes:* **Roughly, over what proportion of the site should this be applied?** *Tick closest answer. Do not prompt. Single response only.*

- All of the site
- None of the site
- Don't know / Not sure
- Part of the site, record response as a percentage

Further details:

22. **Should areas be designated at Burnham Beeches where dogs are not allowed at all?** *Do not prompt. Single response only.*

- Yes
- No
- Don't know / Not sure

23. *If answer to Q22 is yes:* **Roughly, over what proportion of the site should this be applied?** *Tick closest answer. Do not prompt. Single response only.*

- All of the site
- None of the site
- Don't know / Not sure
- Part of the site, record response as a percentage

Further details:

24. Should there be a maximum number of dogs that an individual dog walker can walk? *Do not prompt. Single response only.*

- Yes
- No
- Don't know / Not sure

25. If answer to Q24 is yes: What maximum number of dogs per visitor would you like to see established? *Do not prompt. Single response only.*

- Given number
- Don't know / Unsure

Further details:

26. If answer to Q24 is yes: Roughly, over what proportion of the site should this be applied? *Tick closest answer. Do not prompt. Single response only.*

- All of the site
- None of the site
- Don't know / Not sure
- Part of the site, record response as a percentage

Further details:

That is the end of the questionnaire. Many thanks for your time.

To be completed by the surveyor after the interview has finished

27. Route mapped?

- Yes
- No

28. GPS used?

- Yes
- No

GPS unit number and start time

29.

Surveyor initials	<input type="text"/>
Month (number)	<input type="text"/>
Day (number, including zero, not text)	<input type="text"/>
Hour (24hr, including zero, eg 09)	<input type="text"/>
Minute (number, including zero, eg 05)	<input type="text"/>
Survey location	<input type="text"/>
Gender of respondent	<input type="text"/>
Total number of people in interviewed group	<input type="text"/>
Total number of males	<input type="text"/>
Total number of females	<input type="text"/>
Number of dogs	<input type="text"/>
Number of dogs seen off lead	<input type="text"/>

30. **Surveyor Comments.** *Please use this space for any comments about this specific questionnaire, for example any issues, or changes that need to be made to the answers manually.*

Appendix 2: Selection of summary tables for dog walkers and comparison of interview responses from dog walkers compared to all other groups

Table 28: Situation of interviewed visitor groups who stated their main activity was dog walking

Visit situation	Response total (as %)
On a day trip / short visit and travelled from home	194 (96)
On a day trip / short visit and staying with friends or family	4 (2)
On holiday in the area, staying away from home	4 (2)
Total	202 (100)

Table 29: The mode of transport used to reach Burnham Beeches by interviewed visitor groups who stated they were dog walking.

Transport mode	Response total (as %)
Car / Van	177 (88)
On foot	25 (12)
Total	202 (100)

Table 30: Reason with the most influence that dog walking visitor groups cited as to why they specifically made a visit to Burnham Beeches

Visit reason cited by dog walkers which had the most influence over why specifically they chose to visit Burnham Beeches	Response total (as %)
Close to home	97 (50)
Other, please detail	28 (14)
Ability to let dog off lead / good for dog	19 (10)
Habit / familiarity	12 (6)
Scenery / variety of views	12 (6)
Nearest place to let dog safely off lead	5 (3)
Large site	4 (2)
Choice of routes / circular routes / length	4 (2)
Feels safe	4 (2)
Suitability of area given weather	3 (2)
Closest place to take the dog	2 (1)
Good / easy / free parking	2 (1)
Cafe	2 (1)
Good for children	1 (1)
Wildlife interest	0 (0)
Trees / old trees	0 (0)
Good location to meet friends / family	0 (0)
Rural feel	0 (0)
Can walk from home / don't need car	0 (0)
Total	195 (100)

Table 31: Other cited reasons which had the most influence over the interviewed dog walking groups choice to visit Burnham Beeches

Other reasons given by interviewed dog walking groups as to the reason which had the most influence over why they specifically chose to visit	Number of responses (as %)
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Burnham Beeches Visitor Survey

Burnham Beeches	
Close to work	4
Lovely area/love coming here	2
Woods well managed, better quality of people and dogs	1
Visiting locally, good for dog walking	1
Free of traffic	1
Made friends with other dog walkers	1
Relaxing Cafe	1
Convenience, close to pub	1
Loves it, more dogs	1
Poo bags	1
Habit	1
Convenient	1
Another site was closed	1
Visited garden centre nearby	1
Varying visits to different sites	1
Looking at site	1
On way home from school run	1
Total	21

Table 32: Reason with the most influence as to why non dog walking visitor groups chose specifically to make a visit to Burnham Beeches

Visit reason cited by groups who were not dog walking which had the most influence over why specifically they visited Burnham Beeches	Response total (as %)
Close to home	47 (33)
Other, please detail	41 (29)
Scenery / variety of views	13 (9)
Good for children	10 (7)
Wildlife interest	6 (4)
Habit / familiarity	5 (3)
Good location to meet friends / family	5 (3)
Suitability of area given weather	5 (3)
Trees / old trees	4 (3)
Large site	3 (2)
Choice of routes / circular routes / length	2 (1)
Cafe	1 (1)
Feels safe	1 (1)
Closest place to take the dog	0 (0)
Good / easy / free parking	0 (0)
Ability to let dog off lead / good for dog	0 (0)
Nearest place to let dog safely off lead	0 (0)
Rural feel	0 (0)
Can walk from home / don't need car	0 (0)
Total	143 (100)

Table 33: Other cited reasons which had the most influence over the interviewed non dog walking groups choice to visit Burnham Beeches

Other reasons given by interviewed non dog walking groups as to the reason which had the most influence over why they specifically chose to visit Burnham Beeches	Number of responses (as %)
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B u r n h a m B e e c h e s V i s i t o r S u r v e y

Autumn foliage	9
For a change	2
Recommendation, joined nature photographic group	2
Someone else chose to visit	3
Picked up a leaflet	1
To look at veteran trees	1
Adventure trip, nature	1
Free parking	1
Husband came as a child	1
Hadn't been here for time	1
Wonderful site	1
Good surfaces and routes for cyclists	1
Heard of the site, visited whilst in the area	1
Still quiet and peaceful	1
In the area	1
Very peaceful, also came to pray	1
On tv last night	1
Found in book	1
Heard of it but never visited before	1
Good surfaces for exercising	1
Convenience	1
Recommended by friends as a lovely place to walk	1
Looking for picnic area	1
Haven't been for a while	1
Spur of moment	1
Nearest to friends house	1
En route attracted by name. On way to Heathrow after holiday in Cotswolds.	1
Car free	1
Cafe and walk with wife	1
Total	41