# FOOTPRINT ECOLOGY



## Rodborough Common Visitor Survey 2019

# Summary

This report details the findings from a visitor survey with members of the public who were visiting Rodborough Common SAC. Visitor surveys were conducted in June 2019 (outside of school holidays) at 5 survey point locations. Surveys consisted of tally counts of visitor numbers and face-to-face interviews with members of the public.

Surveying locations included four parking locations of varying size and ranging from formal car parks to informal layby locations, and one central location (without adjacent parking). Several limitations are acknowledged within the data, including variable weather conditions.

Key results from the tally data were:

- Tally counts were conducted for a total of 80 hours, during this time 1,072 people (including 176 minors and 27 cyclists) and 458 dogs, from 567 groups were recorded.
- Across all survey points roughly 2.2 times as many people were seen on weekends, compared to weekdays.
- Averaged group size was 1.9 people per group, of which 0.3 were minors, 0.05 on a bicycle and with 0.8 dogs per group.
- Some subtle differences between survey points were the high group size at 5. Hodsoll Path, with a large proportion of minors, and a high proportion of dogs (1.3 per group) at 2. Butterrow Hill North.

Key results from the interview data were:

- A total of 195 people, either as lone individuals or members of a group, were interviewed (approximately 34% of the groups passing were interviewed).
- At each survey point this ranged from 22 interviews at 5. Hodsoll Path to 52 interviews at 4. Rodborough Centre.
- 93% were on a short visit directly from home.
- 61% of interviewees were dog walkers and formed the largest activity group at every survey point, except for 5. Hodsoll Path, where just 18% were dog walkers (23% were getting ice cream).
- Overall, 70% of interviewees arrived by car and 29% on foot. Roughly 60% of all interviewees said they would not have changed their mode of transport had other means been available.
- 56% of interviewees were visiting the site for between 30 minutes to 1 hour, with an average interviewee duration estimated at 60 minutes.
- The largest category of visit frequency was 1 to 3 times a week (29% of interviewees) and averaging across all interviewees we would estimate a typical visitor makes around 180 visits a year to the site.
- Interviewees full list of reasons for visiting here typically related to scenery/ views (57%) good for dog / dog enjoys it (51%), the ability to let the dog off lead (41%) and proximity of the site to home (41%). When forced to select a single main reason around a quarter

stated because of the scenery / views (26%) and a quarter because the site is close to home (26%).
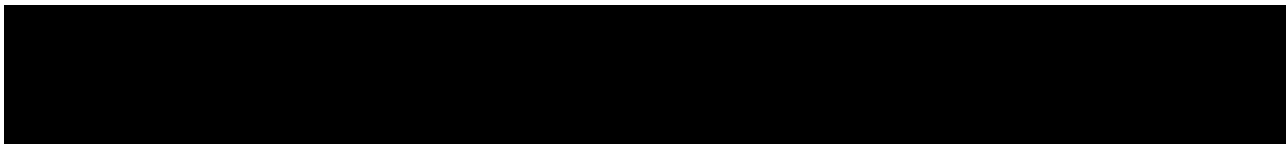
- Interviewees' most popular alternative sites include: other parts of Rodborough common, Selsley common, Minchinhampton, Stroud canal, Canals and Woodchester park.
- When asked if they would use a new country park, most interviewees were unsure with 67% who did not know, were not sure or could not tell, and a further 15% who stated maybe. Popular features for a new country park were; a café (31%), off-lead areas for dogs (25%) and the pooled category of "other" (24%).
- Overall average route length was 2.4 km (mean) and 2.2 km (median), with routes widely distributed across the SAC habitat, with the exception of Butterow Hill.
- A total of 188 postcodes were provided (96% of interviewees). Mapping postcodes showed 87% of interviewees were from Stroud District, followed by Cotswold District (7%) and Cheltenham (2%).
- Linear distances between survey points and home postcodes showed the average (mean) was 5.1 km (± 1.1 SE), but half lived with1.9 km (median) and three-quarters within 3.9 km.

# Contents

# Acknowledgements

# 1. Introduction

## Rodborough Common

1.1 Rodborough Common Special Area of Conservation (SAC) is a 109ha site just south of Stroud, Gloucestershire. European wildlife sites are an important feature of the District's natural heritage, with the three main sites being the Severn Estuary, Rodborough Common and the Cotswold Beechwoods. Rodborough Common is designated as a SAC under the Conservation of Habitats and Species Regulations 2017, as amended, which transposes the requirements of the EU Habitats Directive and Wild Birds Directive into domestic legislation. The site is designated for the important calcareous grassland communities[1] found there, which are of European importance. The common is a hilltop site on Jurassic limestone, and at a national level it is notified as a Site of Special Scientific Interest (SSSI) for both its biological and geological interest. It is also a Regionally Important Geological Site (RIGS). The common is also recognised for its landscape value, being located within the Cotswold Area of Outstanding Natural Beauty (AONB).

1.2 The unimproved, herb-rich grassland of Rodborough and nearby Minchinhampton are one of the largest areas of dry limestone grassland in the Cotswolds. The grassland is dominated by Tor-grass *Brachypodium pinnatum*, Upright Brome *Bromus erectus*, Sheep's-fescue *Festuca ovina*, and Quaking Grass *Briza media*. The site has a number of rare species of well drained calcareous grassland, such as Squinancywort *Asperula cynanchica,* Pasqueflower *Pulsatilla vulgaris,* Autumn Lady's Tresses *Spiranthes spiralis* and a large number of orchid species. The site also supports several rare invertebrates, including the Duke of Burgundy butterfly *Hamearis lucina* and recolonised Adonis blue *Polyommatus bellargus*.

1.3 Natural England publishes Site Improvement Plans (SIPs) for designated sites to highlight key issues and identify actions to reduce or remove risks and threats to the site. The SIP for Rodborough Common recognises public access as a concern [2], suggesting recreational use has increased greatly in recent decades. Increased public access is creating new paths and parking

---

[1] 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)
[2] http://publications.naturalengland.org.uk/publication/5525408413908992

areas, creating erosion and compaction, while increased numbers of dogs can result in more dog fouling with increases levels of nitrogen and pose a disease and stress risk to grazing livestock.
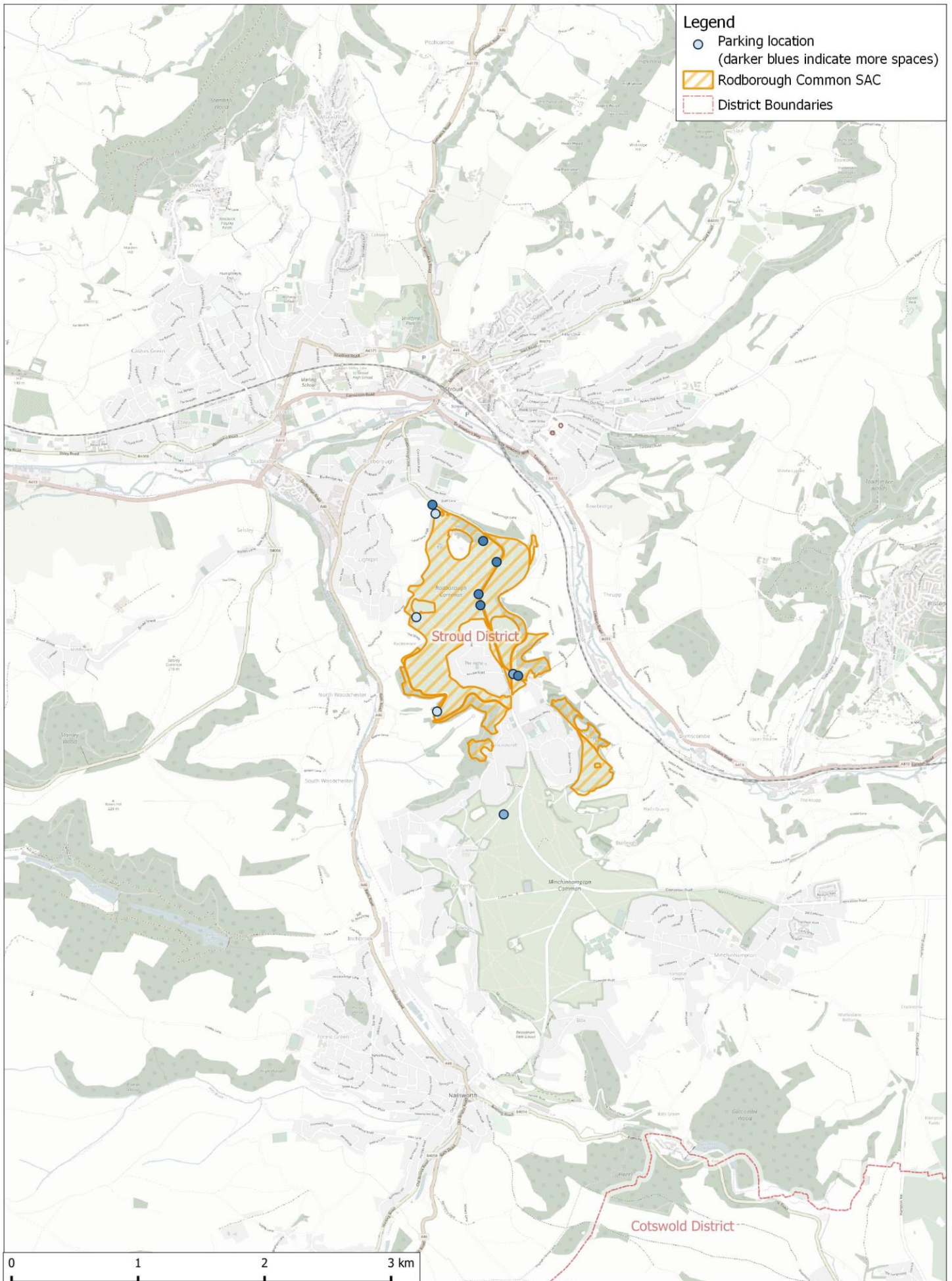
## Planning Context

1.4     The visitor survey was commissioned by Stroud District Council as evidence to inform the Habitats Regulations Assessment of the emerging Stroud Local Plan. A 'Habitats Regulations Assessment,' normally abbreviated to HRA, is the step by step process of ensuring that a plan or project being undertaken by, or permitted by a public body, will not adversely affect the ecological integrity of a European wildlife site.  Where it is deemed that adverse effects cannot be ruled out, a plan or project must not proceed, unless exceptional tests are met. The Conservation of Habitats and Species Regulations 2017, as amended, normally referred to as the 'Habitats Regulations' require competent authorities, including local planning authorities, to adhere to the HRA requirements. The duties are also supplemented by national planning policy through the National Planning Policy Framework 2019 (NPPF). The requirements are applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so.

1.5     The existing Stroud Local Plan, adopted in 2015, provides for the sustainable development of the Stroud District up to 2031. The review of the Stroud Local Plan has commenced and will progress through various stages of public consultation and refinement before being submitted for Examination in Public, enabling scrutiny by the Planning Inspectorate prior to adoption. Throughout the plan making process, the HRA is also refined and updated, informing the content of the plan by assessing any risks to European sites and recommending measures to alleviate any such risks.

1.6     The Council has already recognised the potential for increasing recreation relating to new residential growth is the District, to pose risks to the sensitive ecological features of Rodborough Common. This was highlighted in the HRA of the current Local Plan and in response the Council worked with a partnership of the National Trust, Natural England and the Stroud Valleys Project to implement a range of mitigation projects to manage recreational access at the site. These are funded by developer contributions collected from within a 3km zone of influence, i.e. a zone from within which it is determined that increases in residential development would lead to

increases in recreational use of the site. The zone has been identified using visitor survey data collected in 2013, which found that 73% of visits were made by visitors living within 3km of the Common. A zone of influence from which new developer contributions are sought for residential development is put in place on the assumption that new residents will use the site in a similar way to existing residents, i.e. the majority will still originate from within 3km.

1.7     By repeating the survey work in 2019, the Council can have confidence that the new HRA for the Local Plan Review is being informed by up to date evidence. This report analyses the visitor surveys undertaken and provides up to date information on visitor behaviour, activities and distances travelled to the site.

# Map 1: Location of the Rodborough Common SAC with reference to local district boundaries and visitor access.



Legend
- ○ Parking location (darker blues indicate more spaces)
- ▨ Rodborough Common SAC
- ▢ District Boundaries

Stroud District

Cotswold District

| 0 | 1 | 2 | 3 km |

# 2.    Visitor survey methodology

2.1    This section details the methodology for our visitor surveys conducted at Rodborough Common SAC. Surveys were conducted as face-to-face interviews with visitors, along with a simultaneous tally count of visitor numbers during the surveying periods.

## Surveying locations

2.2    We identified the potential surveying locations by recognising parking locations and access from housing within the vicinity of the SAC. These suggested locations were revised based on feedback from some of the stakeholders and a site visit. The final list of 5 locations for Rodborough Common is given in Table 1.

**Table 1: Details of the five survey point locations at Rodborough Common.**

| ID | Name | Description | Surveyor instructions |
|---|---|---|---|
| 1 | The Butts | Survey point covering the two paths which access Rodborough Common from the informal parking on this NW corner. | Surveyor instructed to roam between these two paths. Tally entering/leaving count along the two paths which access the Common. |
| 2 | Butterrow Hill North | Car park along Butterrow Hill. | Surveyor instructed to roam the car park and interview people arriving by car or just passing through. Tally entering/leaving as those people parking here and entering the common/ leaving common back to car. Other people passing through car park categorised as moving within. |
| 3 | Butterrow Hill South | Car park along Butterrow Hill. | Surveyor instructed to roam the car park (with steps as a good intercepting point) and interview people arriving by car or just passing through. Tally entering/leaving as those people parking here and entering the common/ leaving common back to car. Other people passing through car park categorised as moving within. |

| ID | Name | Description | Surveyor instructions |
|---|---|---|---|
| 4 | Rodborough Centre | Survey point in the middle of the Common. On main path, near a bench. | Surveyors used the bench (with a photo) to locate themselves. Surveyors roamed a rough 3 m radius, and recorded people passing at this point along two main paths (no entering/leaving count) |
| 5 | Hodsoll Path | Informal roadside parking, near the Winstone's Ice Cream. | Surveyors roamed the layby but aimed to avoid too many people using the Ice Cream shop. Tally referred to people entering/leaving as those people parking and any other people passing through separately. |

## Timings

2.3   Surveys were conducted in summer 2019, outside of local school holidays (local school term time generally between 8th June and 24th July). Exact dates of surveying at each point location is given in Table 2 (ranging from 9th to 30th June 2019).

2.4   Sixteen hours of survey work were conducted at each survey point, evenly split between weekends and weekdays and covering different times of day. Visitor surveying was conducted as four, two-hour blocks per day, with exact timings as follows: 0700-0900; 1030-1230; 1400-1600; 1700-1900. This ensured coverage over the whole day, while allowing the surveyors time for comfort breaks.

**Table 2: Surveying dates for the 5 survey point locations at Rodborough Common.**

| ID | Name | Weekday | Weekend |
|---|---|---|---|
| 1 | The Butts | 25/06/2019 | 22/06/2019 |
| 2 | Butterrow Hill North | 10/06/2019 | 09/06/2019 |
| 3 | Butterrow Hill South | 25/06/2019 | 29/06/2019 |
| 4 | Rodborough Centre | 27/06/2019 | 30/06/2019 |
| 5 | Hodsoll Path | 26/06/2019 | 23/06/2019 |

## Surveying

2.5   Our visitor surveyors were positioned at each survey point to conduct interviews with site users and count people.

2.6   Surveyors wore green hi-vis jackets with the Footprint Ecology logo and clearly identified themselves as visitor surveyors. Where parking was

available, surveyors also had a poster clearly displayed in their car window to indicate that the visitor surveys were taking place.

## Interviews

2.7     Potential interviewees were approached at random by selecting the next available interviewee once the preceding interview had been completed. Interviews were conducted with those entering/leaving the access point being surveyed, and anyone else moving through the site. In cases where the survey point was not at an access point, the surveyor interviewed any people moving through the site. No unaccompanied minors were approached or interviewed (but were recorded in tallies).

2.8     The surveyors conducted the interview on tablets using SNAP survey software[3], an industry standard software for questionnaire design and visitor surveys. A full print out of our questionnaire used is included in Appendix 1.

## Tallies

2.9     Alongside the interviews, surveyors maintained a tally of all people passing, recording numbers of groups, individuals, minors, dogs and bikes during the 16 hours of surveying at each location. These counts enabled us to compare sites in terms of visitor volume/footfall, and to identify what proportion of visitors were interviewed at each location.

## Routes

2.10     Interviewees' routes within the sites were plotted in the field as part of the questionnaire on paper maps, which we subsequently digitised in GIS. We used paper maps which show contour lines, alongside a satellite image reference map, to help people understand the slopes and routes.

## Analysis

2.11     All route and postcode analysis were conducted in GIS, QGIS 3.4. Home postcodes were geocoded using Royal Mail Postzon postcode data from 2019. Only full, valid postcodes were used in analysis of visitor origins, partial postcodes or named towns/villages were not included in any analysis due to the variation in precision.

---

[3] www.snapsurveys.com

2.12    Analyses in this report make use of a number of averages where appropriate, both means and medians, and often presented together to examine the distribution of values. All data analysed with statistical tests were not normally distributed (usually positively skewed, with a small number of very high outlier values), and therefore we used non-parametric tests and median values.

## Weather & other factors

2.13    Weather conditions during the surveys were fairly typical for the time of year, although there were extremes of weather in the period [4]. We avoided the most extreme of these conditions (e.g. when weather warnings were issued), but survey days could include periods of moderate rainfall or, at the other end of the scale, very hot days. These days were forced to be surveyed to ensure surveying was completed before the start of the school holidays. Overall weather conditions could be extremely variable as shown in Table 3.

**Table 3: Summary of the weather conditions recorded by surveyors. These are out of a total of 8 sessions for each survey point and 40 sessions in total across all survey points.**

| ID | Sessions with any rainfall | Average of Cloud cover (8th) | Temperature for session | | | |
|---|---|---|---|---|---|---|
| | | | Cool | Mild | Warm | Hot |
| | **13** | **5.3** | **7** | **15** | **9** | **9** |
| 1 | 3 | 5.1 | | 2 | 3 | 3 |
| 2 | 5 | 7.0 | 4 | 3 | 1 | |
| 3 | 3 | 4.3 | | 4 | 1 | 3 |
| 4 | 0 | 2.3 | | 1 | 4 | 3 |
| 5 | 2 | 7.9 | 3 | 5 | | |

2.14    The weather had some indirect impacts on access – the car park at survey point 3, Butterrow Hill South, was flooded in the first session (although it was not raining at the time), which may have put some people off using it. The impact of weather is discussed again in refusal counts, as some people did not wish to take part because it was too hot or too wet.

2.15    At survey point 5, Hodsoll Path, near the ice cream shop, many people were visiting just for ice cream, especially on the hotter days. These people were generally avoided for interviewing (as they were likely to have less impact on

---

[4] https://www.metoffice.gov.uk/research/climate/maps-and-data/summaries/index

the site). This was done by focusing surveying at the opposite end of the layby from the ice cream shop. Visitors who were visiting the shop and then using the site were interviewed, but this was not always clear before interviewing and so some respondent's main activities were visiting the ice cream shop.

# Map 2: Numbered visitor survey points.



STROUD

Cainscross Road

Legend
- Survey Points
- Public Rights of Way

Parking locations
(larger circles indicate more spaces)
- 60
- 40
- 20

Rodborough Common SAC

Stroudwater Canal

River Frome

Thames and Severn Canal

parliament Street

Middle Street

Bowbridge La

Rodborough

Bowbridge

udbridge Hl

Walkley Hl

Butterow West

Dark La

Rodborough Lane

Butterow

A419

Thrupp

Kingscourt La

Rodborough Hl

Butterow Hill

Butterow La

London Road

Claypits Wood

Griffin Mill Estate

Kitesnest La

A46

Lightpill

Kingscourt

Rodborough Common

Bagpath

Montserrat

North Woodchester

Rooksmoor Hl

Rooksmoor

Rooksgrove

Bagpath Lane

Houndscroft

Swells Hill

Southfield Road

The Bungalow

Littleworth Common

Bownham

The Folly

Swellshill

Nailsworth Valley

Bath Ro

St Chloe's Green

St Chloe

Littleworth

Claycombe

207

Burleigh Lane

0    0.5    1    1.5 km

Minchinhampton

# 3.      Visitor Survey Results: Tally Data

## Total footfall

3.1      Surveys were conducted for a total of 80 hours on site. A summary of the count of people is given in Table 4. The overall total was 1,072 people (including 176 minors and 27 cyclists) and 458 dogs from 567 groups. This equated to approximately 13.4 people per hour passing survey points.

**Table 4: Summary of the tally totals recorded at each survey point location, with final columns showing some summary metrics. These summary metrics are coloured red to blue for high to low values.**

| ID | Groups | People (inc minors & cyclists) | Dogs | Minors | Cyclists | people per group | % minors | % cyclists | dogs per group |
|----|--------|-------------------------------|------|--------|----------|------------------|----------|------------|----------------|
|    | **567** | **1072** | **458** | **176** | **27** | **1.9** | **16** | **3** | **0.8** |
| 1  | 68  | 104 | 55  | 11 | 3  | 1.5 | 11 | 3 | 0.8 |
| 2  | 126 | 194 | 166 | 13 | 0  | 1.5 | 7  | 0 | 1.3 |
| 3  | 118 | 203 | 102 | 30 | 4  | 1.7 | 15 | 2 | 0.9 |
| 4  | 119 | 218 | 99  | 25 | 8  | 1.8 | 11 | 4 | 0.8 |
| 5  | 136 | 353 | 36  | 97 | 12 | 2.6 | 27 | 3 | 0.3 |

*Differences between survey points*

3.2      Count totals for survey points (see Table 4) were converted to number of people per hour and values ranged from 6.5 (survey point 1. The Butts) to 22.1 (5. Hodsoll Path). Differences between individual survey points were tested using the total number of people for each two-hour session. However, this did not show any significant differences between survey point (KW; H=6.65, df=4, p=0.156), suggesting consistent levels of use across the survey points.

*Differences between weekdays and weekends*

3.3      Large differences between weekdays and weekend days were observed. In total 334 people were recorded in tally counts on weekdays, but 738 on weekend days – roughly 2.2 times greater. A statistical test between totals

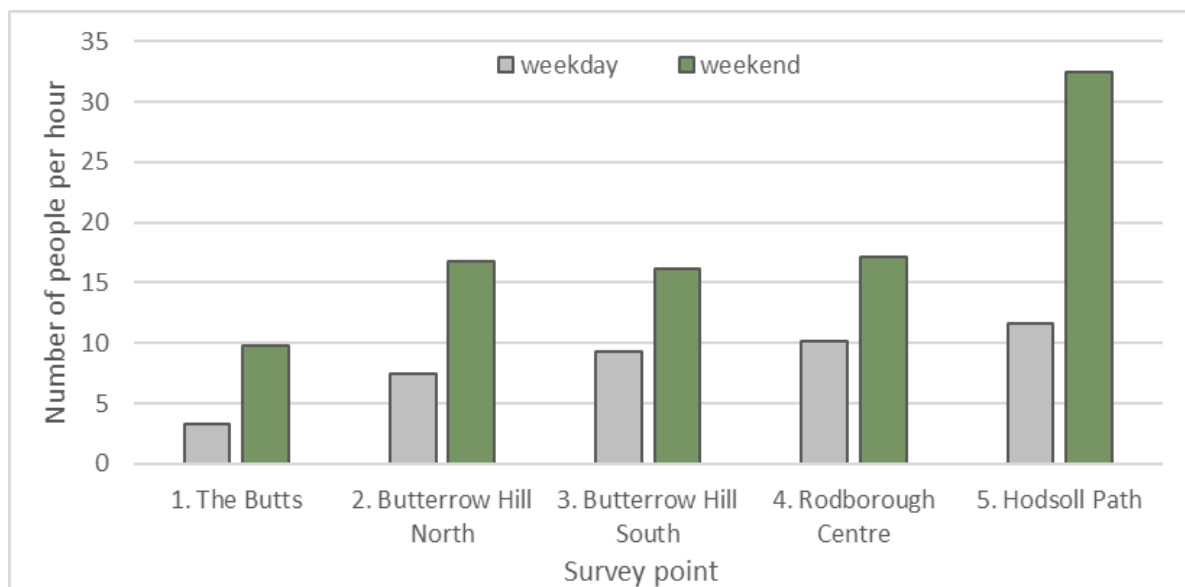for each survey point showed highly significant differences (KW; H=9.12, df=1, p=0.003).



**Figure 1: Averaged number of people per hour at each survey point on weekdays and weekends.**

*People entering*

3.4      Tally data are also presented considering just the number of people entering the site, where applicable, at each survey point location, presented in Map 3.

## Tally composition

*Group sizes*

3.5      As part of the tally count, the surveyors recorded the numbers of groups, people, dogs, minors and cyclists. The tally totals of the number of people and groups allowed for simple averaging of group sizes.

3.6      Overall an averaged group would have consisted of 1.9 people, of which 0.3 were minors, 0.05 on a bicycle, and with 0.8 dogs. As such averaging these would estimate around a third of all groups included a minor, four in every five were with a dog, and just 1 in 20 included someone on a bicycle. At individual survey points group size ranged from 1.5 (1. The Butts) to 2.6 (5. Hodsoll Path) people per group – as shown in Figure 2.

*Activities*

3.7      Inference on activities being conducted can be made from tally count categories – see totals in Map 4 and numbers per group in Figure 2. Highest

numbers of minors were recorded at 5. Hodsoll Path (97 minors), equivalent to 0.7 per group, suggesting many family groups. The greatest count of dogs was 166 at 2. Butterrow Hill North, averaging at 1.3 dogs per group, suggesting the location is the most popular point for dog walking. The number of cyclists was consistently low, but ranged from 0 to 12 recorded in total per survey point.
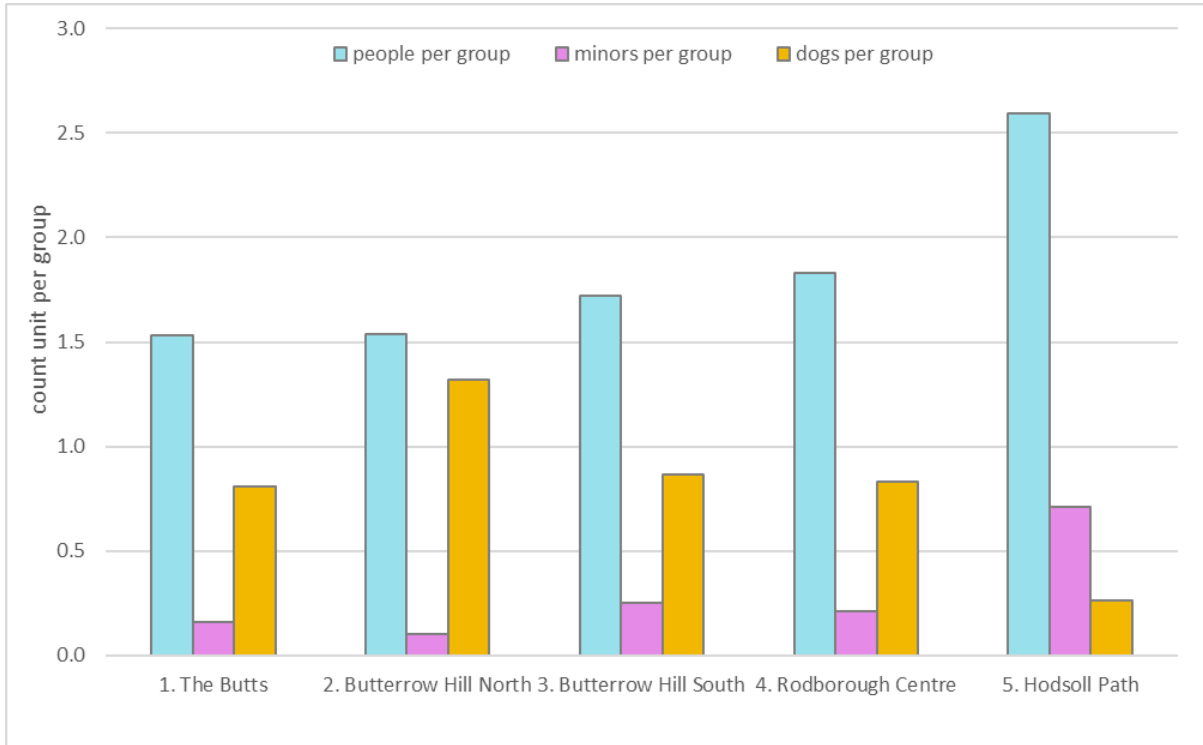


**Figure 2: Tally composition shown as the average number of people, minors and dogs per group for each survey point.**

# Map 3: Pie charts to show the relative number of people entering, leaving and passing. Overall size indicates the relative total number of people.



Legend
- Survey Points

Pie charts:
(sized by total number of people)
- entering
- leaving
- passing

- 250
- 100
- 50
- 10

Rodborough Common SAC

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright Designated site boundaries download from the Natural England website © Natural England.
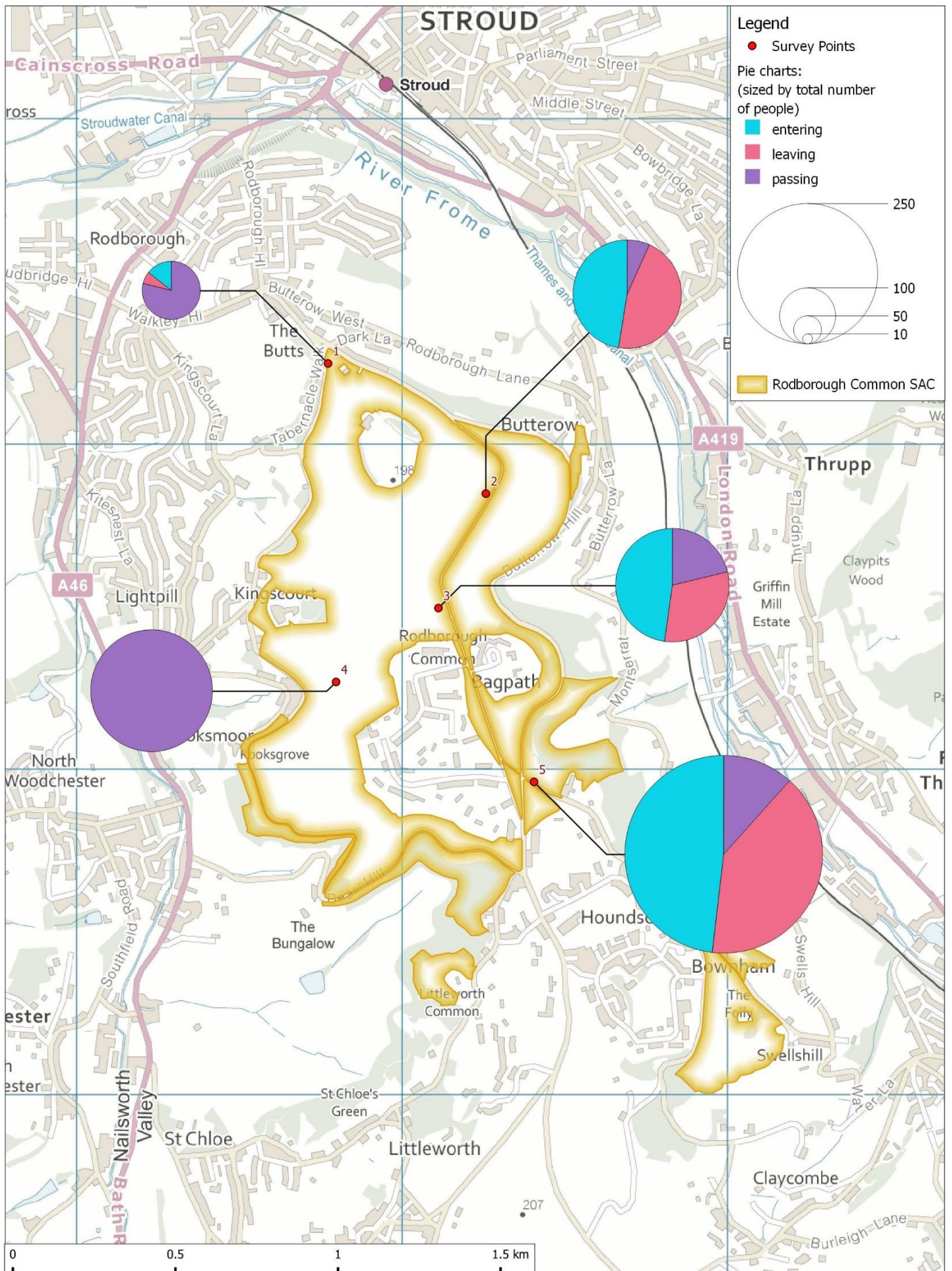
# Map 4: Bar plots to show the numbers of groups, people, dogs, minors and cyclists observed at each survey point.



Legend
- Survey Points

Bar plot:
- groups
- people
- dogs
- minors
- cyclists

250
50
10

Rodborough Common SAC

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright Designated site boundaries download from the Natural England website © Natural England.
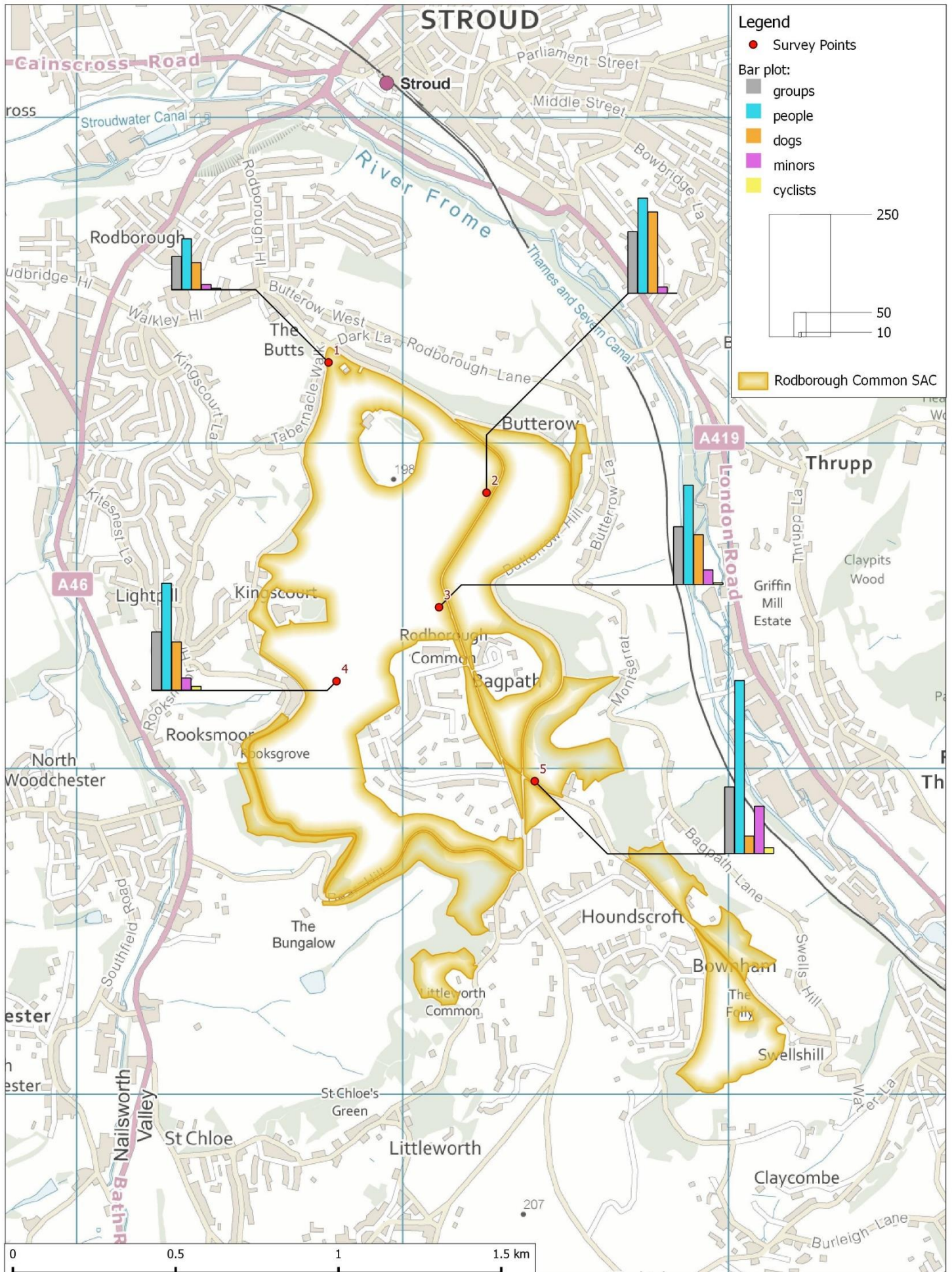
# 4. Visitor Survey Results: Questionnaire Data

## Number of interviewees

4.1    Interviews were undertaken with a total of 195 people, either as lone individuals or members of a group. Interviews took part with approximately 34% of the groups passing and took a median of 9 minutes to complete.

4.2    On average 39 interviews (mean value) were conducted at each survey point over the two days of interviewing, ranging from 22 interviews at 5. Hodsoll Path to 52 interviews at 4. Rodborough Centre. The number of interviewees at each survey point is shown in Table 5.

4.3    The percentage of groups seen who were interviewed was lowest at survey point 5. Hodsoll Path due to selectively targeting those who were using the Common rather than those seen to be heading for the ice cream shop. At survey point 4. Rodborough Centre the number of people seen who had already been interviewed was notably higher, 19 groups, 16% of all groups seen. Although this was due in part to the last surveying day being at this survey point, in combination with regular visitors.

**Table 5: Summary of visitor interviews, showing the number of refusals, number of people approached who had already been interviewed and the total number of interviews conducted at each survey point. The latter is also expressed as a percentage of all groups seen in the tally counts.**

| Survey point | Number of refusals | Number already interviewed | Number of interviews | % of groups seen who were interviewed |
|---|---|---|---|---|
| 1. The Butts | 11 | 2 | 34 | 50 |
| 2. Butterrow Hill North | 16 | 8 | 37 | 29 |
| 3. Butterrow Hill South | 5 | 9 | 50 | 42 |
| 4. Rodborough Centre | 4 | 19 | 52 | 44 |
| 5. Hodsoll Path | 1 | 1 | 22 | 16 |
| **Total** | **37** | **39** | **195** | **34** |

## Visit patterns

### Visit type

4.4 Across all interviews, the majority of interviewees 93% (181 out of 195 interviewees) were on a short visit directly from home. Of the remaining interviewees, 4.6% of interviewees (9) were staying away from home, on holiday, and 2.1% (4) people were staying away from home, but with friends or family. Just one interviewee was in the area for work. The survey point with the lowest percentage on a short visit from home, was at 3. Butterrow Hill South, where 86% were visiting from home, compared to 100% at 2. Butterrow Hill North.
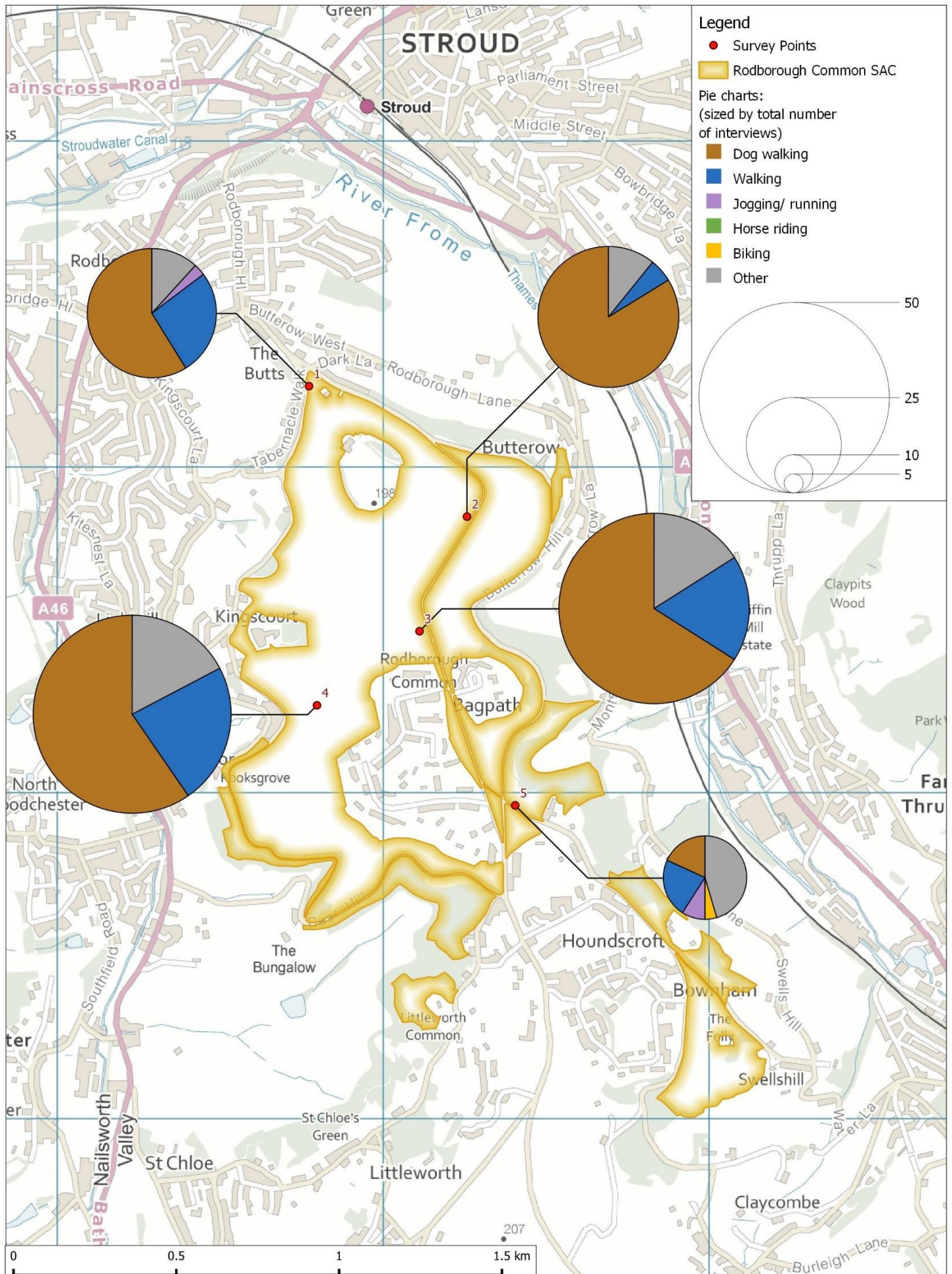
### Activities

4.5 Dog walking was the most common main activity, undertaken by 119 interviewees, roughly 61% of interviewees. Dog walkers also formed the largest activity group at every survey point, except for 5. Hodsoll Path, where just 18% were dog walkers – see Table 6 and Map 5. At survey point 5. Hodsoll Path, the largest category was "other" for 6 interviewees; 5 of which were getting ice cream. Statistical testing showed that the count of dog walkers differed significantly between survey points compared to an average across all sites ($X^2$=24.99, df= 4, p<0.001).

**Table 6: Summary of interviewee activities at each survey point.**

| Survey Point | Dog walking | Walking | Other | Outing with family | Meeting up with friends | Jogging/ power walking / running | Enjoying scenery / fresh air | Bird/Wildlife watching | Picnic | Shortcut/Commuting | Cycling/Mountain Biking | Photography | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. The Butts | 20 | 9 | 3 | | | 1 | | | | 1 | | | 34 |
| 2. Butterrow Hill North | 31 | 2 | | | | | 3 | 1 | | | | | 37 |
| 3. Butterrow Hill South | 33 | 9 | 2 | 1 | 3 | | | | 1 | | | 1 | 50 |
| 4. Rodborough Centre | 31 | 12 | | 8 | | | | | 1 | | | | 52 |
| 5. Hodsoll Path | 4 | 5 | 6 | 1 | 1 | 2 | | 1 | | 1 | 1 | | 22 |
| **Total** | 119 | 37 | 11 | 10 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 195 |

# Map 5 : Pie charts to show interviewee activities from surveys. Overall size indicates the relative total number of people.



Legend
- Survey Points
- Rodborough Common SAC

Pie charts:
(sized by total number of interviews)
- Dog walking
- Walking
- Jogging/ running
- Horse riding
- Biking
- Other

50
25
10
5

0     0.5     1     1.5 km

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright Designated site boundaries download from the Natural England website © Natural England.

*Transport*

4.6    Overall across all survey points 70% of interviewees (136 interviewees) arrived by car and 29% on foot (57) – see Table 7. Clearly surveying locations which were located in car parks recorded high proportions of access by car, but the central location still had around 60% of interviewees arriving by car.

**Table 7: Summary of modes of transport interviewees used for each survey point.**

| Survey point | Approximate parking spaces | Car / van | On foot | Bicycle |
|---|---|---|---|---|
| 1. The Butts | 14 | 11 (32) | 22 (65) | 1 (3) |
| 2. Butterrow Hill North | 10 | 36 (97) | 1 (3) | (0) |
| 3. Butterrow Hill South | 11 | 43 (86) | 7 (14) | (0) |
| 4. Rodborough Centre | 0 | 30 (58) | 22 (42) | (0) |
| 5. Hodsoll Path | 20 | 16 (73) | 5 (23) | 1 (5) |
| **Total** | | **136 (70)** | **57 (29)** | **2 (1)** |

4.7    When asked if they would have used any other means of transport had it been available, such as better bus or cycle routes, overall 60% of all interviewees (117) said they would not have changed their mode of transport. Figure 3 examines responses from only those arriving by car, and shows that 3% (4 interviewees), would have cycled, had better routes been available, and 18% walked and 18% taken public transport (24 interviewees each).
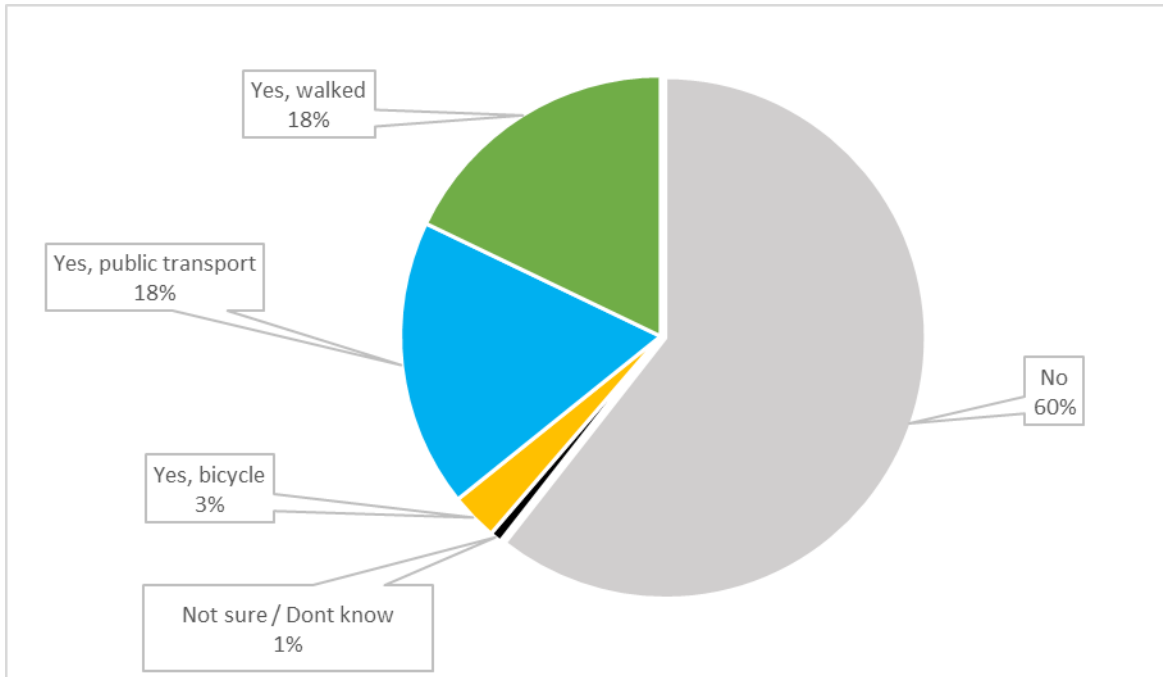
**Figure 3: Summary of responses from those arriving by car to the question "would you have used any other means of transport had it been available, such as better bus or cycle routes?".**

*Visit duration*

4.8     Interviewees were asked to consider their visit patterns, with regards to the duration of their current visit and frequency of visit to the site. Reponses given in these two questions were categorised into classes by the surveyor (classes given in the questionnaire in the appendices and shown in Figure 4 and Figure 5).

4.9     Interviewees were first asked to state how long they had spent/were going to spend on site. Categories of visit duration, with reference to the approximate time in minutes on site, were used to group the interviewees' responses. In addition, from the frequencies reported by each respondent we calculated an approximate averaged visit duration. This was estimated using the number of interviewees in each category, multiplied by an approximate duration in terms of minutes[5], summed for each category, and then divided by the overall number of interviewees. While this is highly simplistic, and

---

[5] Estimated average time used values: Less than 30 minutes = 20 minutes; Between 30 minutes and 1 hour = 45 minutes; 1 to 2 hours = 90 minutes, 2 to 3 hours = 150 minutes.

values are considered very approximate, it serves well to give an indication, allow comparison and provide a ranking to the survey points.

4.10    The majority of all interviewees, 56% (109 interviewees), were visiting the site for "between 30 minutes to 1 hour". Clearly visits were generally short, 12% (24 interviewees) visiting "less than 30 minutes" and when pooled, overall 95% (185) were visiting for less than 2 hours.

4.11    There were some very slight differences between sites, as shown in Figure 4. Most notably the difference between 5. Hodsoll Path and all other surveying points. The average time spent on site for a typical visit at Hodsoll Path was estimated to be around 80 mins, compared to just under 60 minutes at the other survey locations (60 minutes was also the overall average).
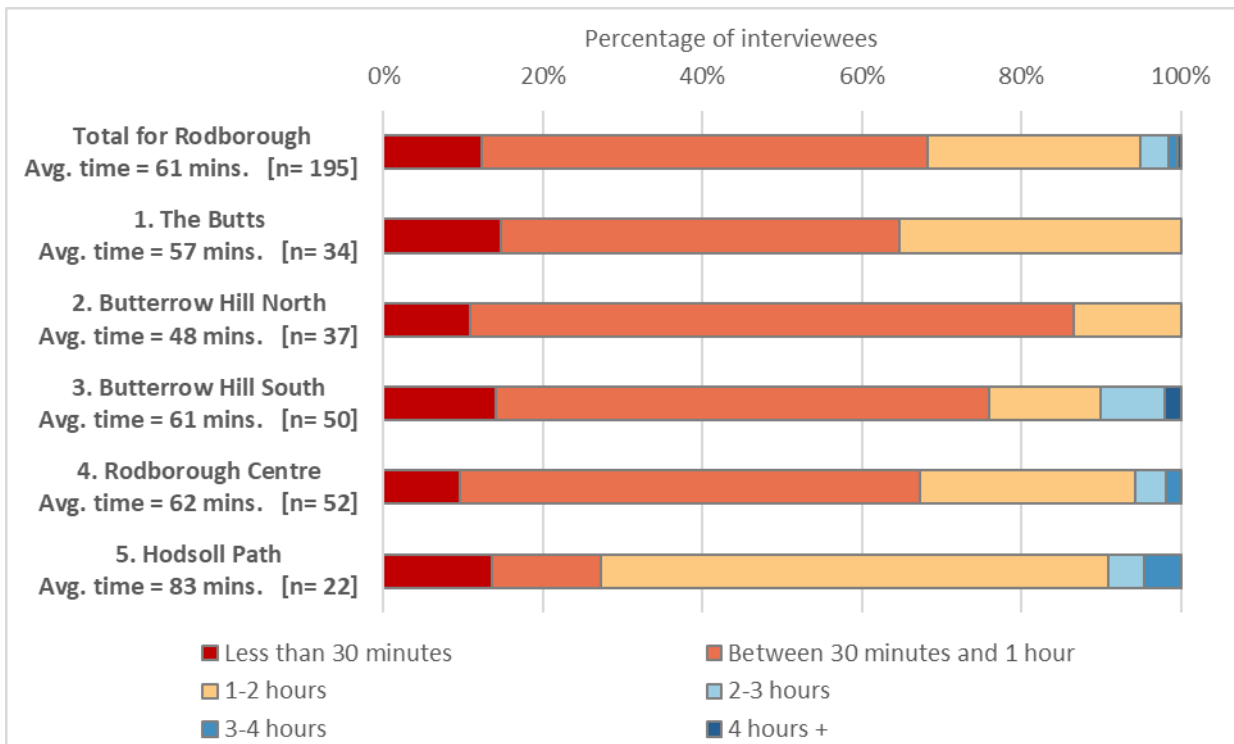


**Figure 4: Summary of visit duration at survey points.**

*Visit frequency*

4.12    Interviewees' responses for visit frequency were categorised with reference to how many visits they made in a year (e.g. "10 visits a year") or how frequently they visited (e.g. "once a week"). As for the visit duration, we used

simple averaging to indicate how often people visited, based on an annual number of visits[6].

4.13    The single largest group of interviewees were those who said they visited around "1 to 3 times a week" – 57 interviewees, roughly 29% (see Figure 5). The two next largest categories were the two frequent classes of "daily" and "most days" with 19% (38 interviewees) and 13% (25). These two classes combined with the more frequent class of visitors who came "more than once a day" (13 interviewees, 7%), totalled to around 2 in every 5 interviewees who visited at least most days (39%, 76 interviewees). Using assigned values of the number of annual visits, we would estimate a "typical" visitor makes around 180 visits a year to the site.

4.14    There were again some differences between sites, as shown in Figure 5. Survey point 5. Hodsoll Path showed 74% of interviewees as infrequent visitors (blue or white colours in Figure 5), while this was an average of just 28% at the four other sites. Across the four other survey points 30% of interviewees were visiting daily or more than once day.

---

[6] "More than once a day" = 700 visits per year, "Daily" = 350 visits per year, "Most days (180+ visits)" =200 visits, "1 to 3 times a week (40-180 visits)" = 110 visits, "2 to 3 times per month (15-40 visits)" =27.5 visits, "Once a month (6-15 visits)" =10.5 visits, "Less than once a month (2-5 visits)" = 3 visits.
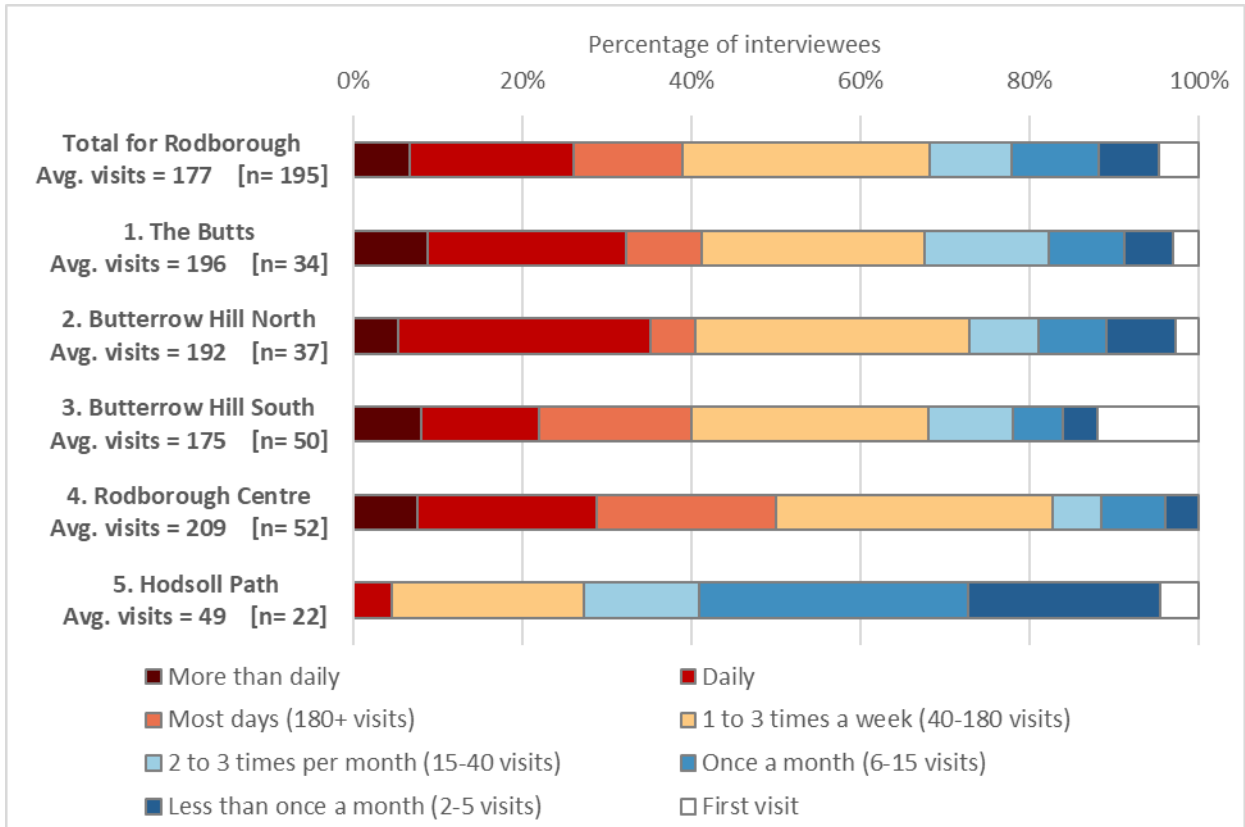
**Figure 5: Summary of visit frequency at survey points.**

*Timing*

4.15    Interviewees were asked if they visited more at a particular time of day. Overall, 48% of interviewees (93 out of 195) suggested it varied, or they did not know and 5% (9) could not comment as they were on a first visit. Remaining interviewees (93) selected one, or more than one, of the times of day in which they visited more. Most popular choices were late morning, 47% of interviewees, followed by late afternoon, 30% of interviewees.

4.16    Interviewees were also asked if they visited more at a particular time of year. Those who were on a first visit were again unable to comment. But for the remaining interviewees who felt they could comment, they selected one, or more than one, season of the year or alternatively stated equally all year. Just over three quarters, 76% of interviewees (149 out of 195), suggested they visited equally all year around, with no seasonal preference. Of the remaining 37 interviewees, who selected one or more seasons, the most common response was for summer 86% of these 37 interviewees, followed by spring, 54% of interviewees.

28

## *Length of time visiting*

4.17     Surveyors asked interviewees to state how long they had been visiting the site, with responses categorised by the surveyors. Overall, just 4% of interviewees (7) were on their visit first to the site. Of the remaining interviewees who could give an estimated time, the majority 55% (108) had been visiting for more than 10 years and just 16% (31) less than three years.
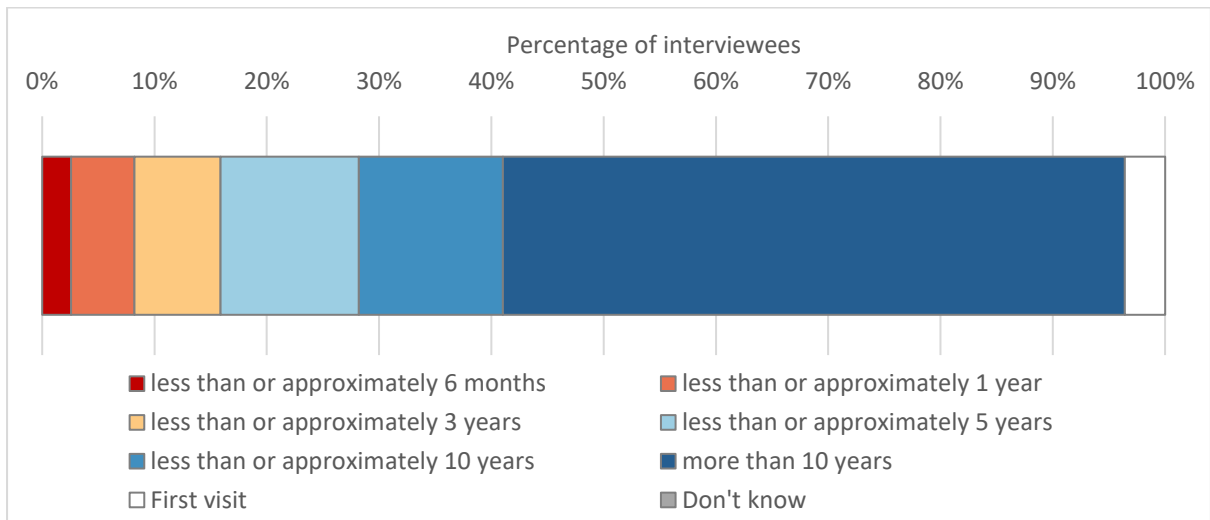


**Figure 6: interviewees' length of time visiting the site.**

## Site choice, alternative sites and reasons

*Current site choice*

4.18    Interviewees were asked to provide reasons why they chose to visit Rodborough Common. Reponses were categorised (where possible) by the surveyor, with multiple choices allowed. Surveyors recorded all the interviewees' responses, but then asked interviewees to select just one single main reason which was recorded separately.

4.19    Just under three-fifths of interviewees (111, 57%), stated their reason for coming as the scenery/ views across both main and other reasons combined (see Table 8). This was followed by 51% of interviewees (100) mentioning it was because the site was good for dog / dog enjoys it and similarly the ability to let the dog off lead 41% (79). This final reason was tied in third place with those who reason was the proximity of the site to home 41% (79). Other reasons were diverse, as shown by the relatively high ranking of the "other" category in fifth place. This included a number of people who were getting ice creams from the shop at survey point 5. Hodsoll Path (at least 9 interviewees gave this as their main reason).

**Table 8: Summary of interviewees' reasons for visiting the current site, provided as: all reasons, a single choice main reason, and all other multiple secondary reasons. Reasons are sorted by the all reasons combined and any reasons given by less than 5% of interviewees are not shown.**

| Reason | Number and % of interviewees | | |
| :---: | :---: | :---: | :---: |
| | All reasons | Single main reason | Other reasons |
| Scenery / variety of views | 111 (57) | 50 (26) | 61 (31) |
| Good for dog /  dog enjoys it | 100 (51) | 12 (6) | 88 (45) |
| Close to home | 79 (41) | 46 (24) | 33 (17) |
| Ability to let dog off lead | 79 (41) | 4 (2) | 75 (38) |
| Other, please detail | 45 (23) | 16 (8) | 29 (15) |
| Rural feel / wild landscape | 41 (21) | 4 (2) | 37 (19) |
| Openness / wide open spaces | 33 (17) | 6 (3) | 27 (14) |
| Particular wildlife interest (including trees) | 31 (16) | 6 (3) | 25 (13) |
| Quick & easy travel route | 26 (13) | 19 (10) | 7 (4) |
| Closest place to take dog | 25 (13) | 3 (2) | 22 (11) |
| Feels safe here | 21 (11) | 3 (2) | 18 (9) |
| Habit / familiarity | 18 (9) | 4 (2) | 14 (7) |
| Appropriate place for activity | 18 (9) | 4 (2) | 14 (7) |
| Good / easy parking | 9 (5) | 5 (3) | 4 (2) |
| Not many people | 8 (4) | 3 (2) | 5 (3) |

4.20    Examination of the single choice main reason shows some notable differences in ranking – see Figure 7. Roughly a quarter of interviewees stated their main reason for choosing this site was for the scenery / views (26%, 50 interviewees) and a further quarter because the site was close to home (26%, 50 interviewees).

4.21    It is also noteworthy that the two highest ranked other reasons were the two dog related reasons (good for dog / dog enjoys it and ability to let the dog off lead).
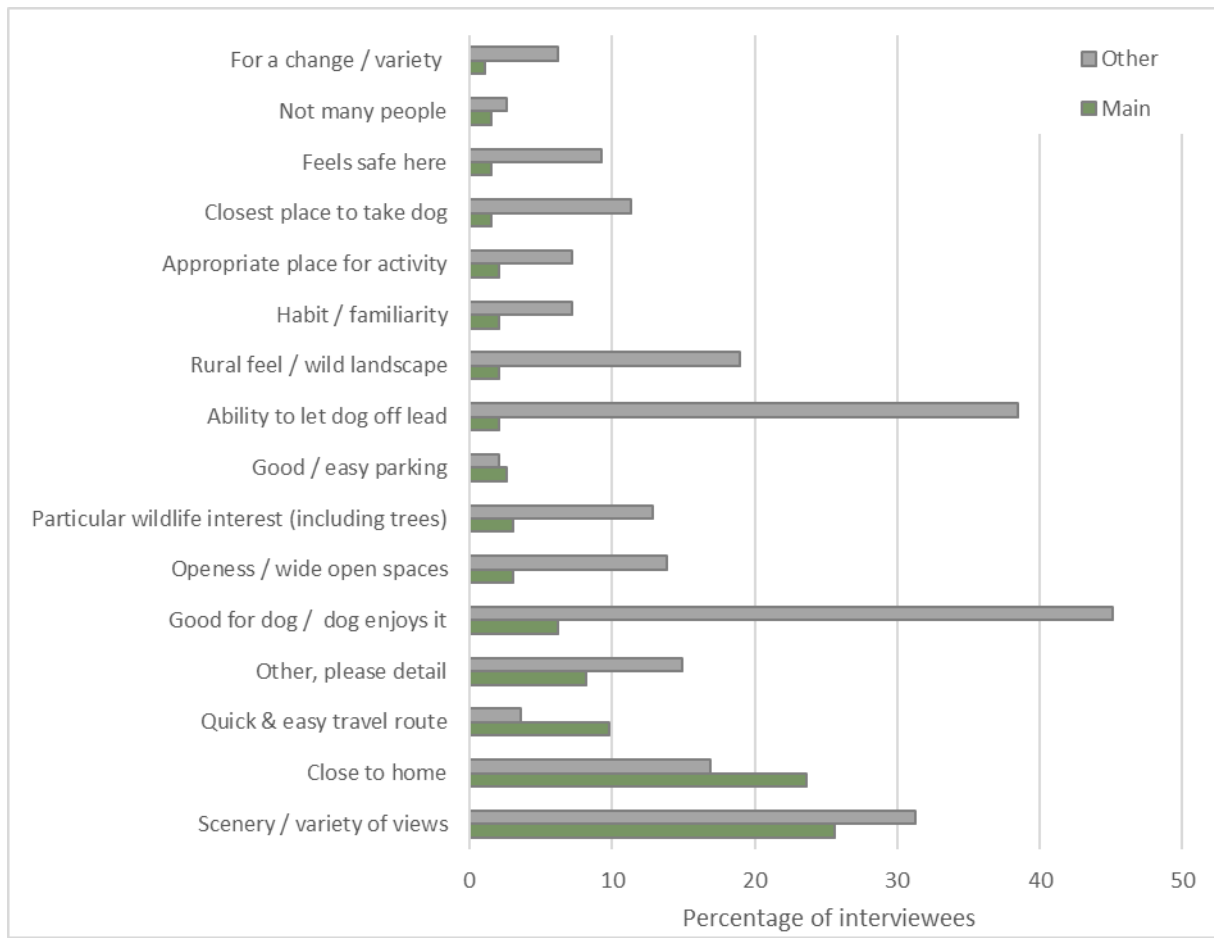
**Figure 7: Summary of interviewees single choice main reason and any other reasons for choosing this site. Categories are sorted by main choice.**

## Alternative site choice

4.22    The interviewee's visit to the location often represents one of many locations used for the activity they were undertaking. Interviewees were therefore asked to suggest how frequently they used this site (i.e. the one where interviewed) for their current activity, as opposed to alternative locations.

4.23    Overall, just over one in ten interviewees (13%, 26 interviewees) stated that they only visited Rodborough Common for their current activity. However, when combined with those who made 50% or more of their visits to the current site, this increased to just over half of interviewees (55%, 108 interviewees) mostly using this site.

4.24    Interviewees were then asked to provide up to three named alternative sites, which they would have visited instead of the current location. Around 15% of interviewees (30) could not name an alternative site. Of those who did name one alternative, the additional sites were less commonly given, with 37% of interviewees not giving a second site and 61% not giving a third site.

**Table 9: Alternative named sites ranked by the number of times mentioned by any interviewees, and then considering only the first named sites. Sites with less than 2% not shown.**

|  | All named sites (number times mentioned, site as a percentage of all named locations) | First named site only (number of interviewees naming site, percentage of interviewees) |
|---|---|---|
| 1 | Rodborough common (64, 18%) | Rodborough common (46, 24%) |
| 2 | Selsley common (62, 17%) | Selsley common (31, 16%) |
| 3 | Minchinhampton (31, 9%) | Minchinhampton (19, 10%) |
| 4 | Stroud canal (16, 4%) | Woodchester park (6, 3%) |
| 5 | Canals (16, 4%) | Stroud canal (6, 3%) |
| 6 | Woodchester park (16, 4%) | Stratford park (5, 3%) |
| 7 | Haresfield beacon (12, 3%) | Canals (5, 3%) |
| 8 | Randwick woods (11, 3%) | The heavens (3, 2%) |
| 9 | Stratford park (10, 3%) | Slad valley (3, 2%) |
| 10 | Selsley (9, 2%) | Nailsworth (3, 2%) |
| 11 | Standish woods (8, 2%) | Haresfield beacon (3, 2%) |
| 12 | Fields (8, 2%) | |
| 13 | Coaley peak (7, 2%) | |
| 14 | Slad valley (6, 2%) | |

4.25    Most popular answers in this full list of all locations were other parts of Rodborough common, Selsley common, Minchinhampton, Stroud canal,

Canals and Woodchester park – see Table 9. If we consider only the first named site then the lists generally consist of the same locations, but in a slightly different order.

## *New or improved greenspaces*

4.26    Interviewees were asked about what changes these greenspaces would need to encourage them to visit more. Just over half of interviewees (54%) suggested that no improvements were needed or that they wouldn't visit these more regardless of any changes and a further 30% suggested they did not know. Of those interviewees providing a suggestion, the most common was for more/better parking (3%), followed by more dog poo bins and new / better cafe/ visitor facilities (both 2%).

4.27    When asked if they would use a new country park (for their current activity) should one to be created near here, most interviewees were unsure with 67% who did not know/were not sure/could not tell and a further 15% who stated maybe. Other than those who were unsure, more people responded positively (14%) than negatively (4%) - see Table 9.

**Table 10: Interviewees responses as to whether they would use a new country park.**

| Activity | n | Yes | Maybe | No | Not sure/ Dont know / Cant tell |
|---|---|---|---|---|---|
| Dog walking | 119 | 13 (11) | 23 (19) | 3 (3) | 80 (67) |
| Walking | 37 | 11 (30) | 2 (5) | 3 (8) | 21 (57) |
| Other | 158 | 17 (11) | 27 (17) | 5 (3) | 109 (69) |
| **Total** | **195** | **28 (14)** | **29 (15)** | **8 (4)** | **130 (67)** |

4.28    Interviewees were then asked to state what features they would like to see at a new country park. The most common suggestion was for the site to have a café (31%), followed by off-lead areas for dogs (25%) and the pooled category of "other" (24%). This category included a wide range of comments such as; a quiet space, lots of events, sculptures, open fields, shade and marked trails.
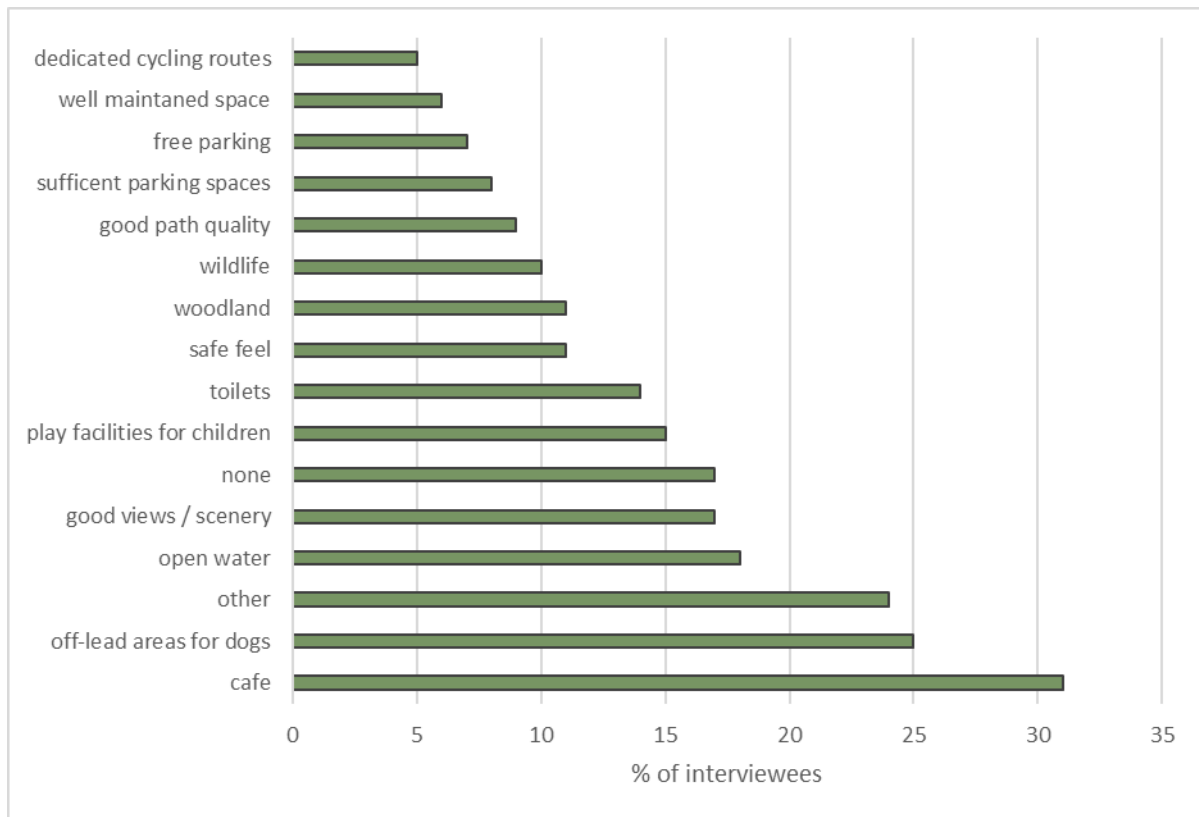
**Figure 8: Interviewees' suggested traits for a new country park. Sorted by the percentage of interviewees with those less than 5% not shown.**

## Routes

4.29    During the interview surveyors asked the interviewee to indicate on a map the route they had taken (or were going to take if just arrived on site). The route was marked on a paper map and all routes were then digitised within GIS allowing us to extract data on route lengths and present pooled data on maps.

### *Route length*

4.30    All interviewees were able to give a route, and route lengths ranged from 116 m to 22.4 km; these could include routes which extended beyond the SAC. The overall average route was 2.4 km (mean) and 2.2 km (median). Table 11 shows the route lengths recorded at survey points were significantly different from each other (using a Kruskal-Wallis test). This is likely in part due to longer routes at 4. Rodborough Centre, where median route length was 2.7 km, compared between 2.1 to 1.9 km at the four other survey points.

**Table 11: Summary statistics and test results for interviewees' route length in km for survey points, sorted by median values.**

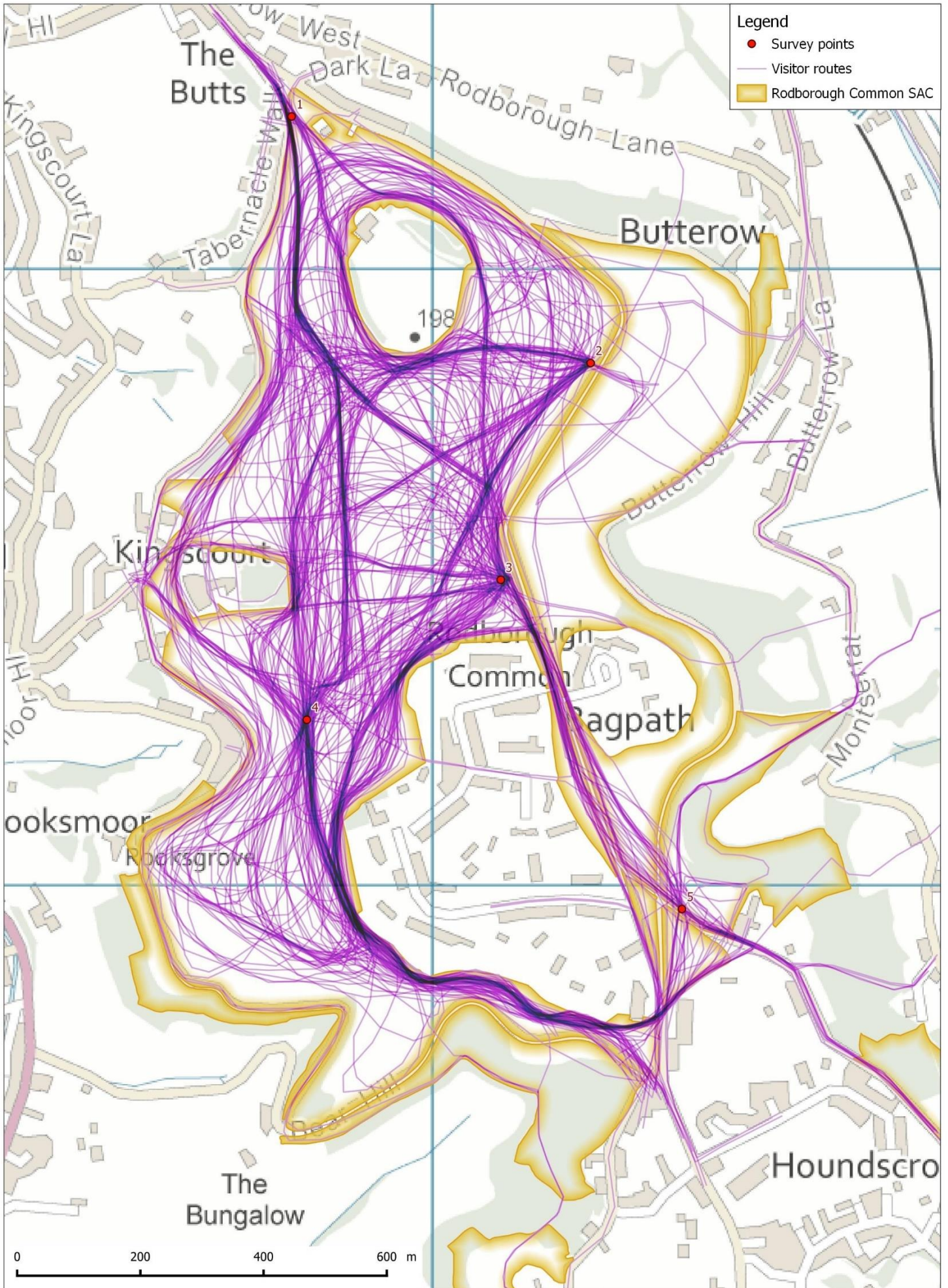| Survey Point | Number of interviewees (n) | Mean ± SE | Median | Min – Max | Q3 (75% percentile) |
|---|---|---|---|---|---|
| 4. Rodborough Centre | 52 | 2.8 ± 0.1 | 2.7 | 1.3 - 4.7 | 3.3 |
| 1.The Butts | 34 | 2.6 ± 0.3 | 2.1 | 0.6 - 5.8 | 3.7 |
| 5. Hodsoll Path | 22 | 2.3 ± 0.3 | 2.1 | 0.3 - 4.7 | 3.6 |
| 3. Butterrow Hill South | 47 | 2.1 ± 0.2 | 2.0 | 0.5 - 4.8 | 2.5 |
| 2. Butterrow Hill North | 37 | 1.9 ± 0.1 | 1.8 | 0.2 - 3.7 | 2.4 |
| *KW: H=19.90, df= 4, p = 0.001.* | | | | | |
| **Total** | **192** | **2.4 ± 0.1** | **2.2** | **0.2 - 5.8** | **3.2** |

4.31    Although dog walking dominated there were still significant differences between activities in route lengths (KW: H=28.34, df= 11, p =0.003), although small sample sizes for some groups mean comparison is difficult and determining a representative average impossible. Dog walking routes were typically 2.1 km (median), though the longest route of 5.7 km was recorded by a dog walker too. Although on average other activities, such as walking and outings with the family, were typically longer (2.6 km and 2.4 km median).

4.32    As a check on route lengths, interviewees were asked if their route was typical of their visit. Excluding those interviewees who were on a first visit, and therefore unable to comment, 77% of the interviewees suggested their route was typical. Roughly 13% suggested it was shorter than usual and just 1% longer than usual. Key factors affecting this were often weather (too hot or too wet) and time. At least 21 interviewees said the location of the cows affected their route, but only two said it affected the typical total route length.
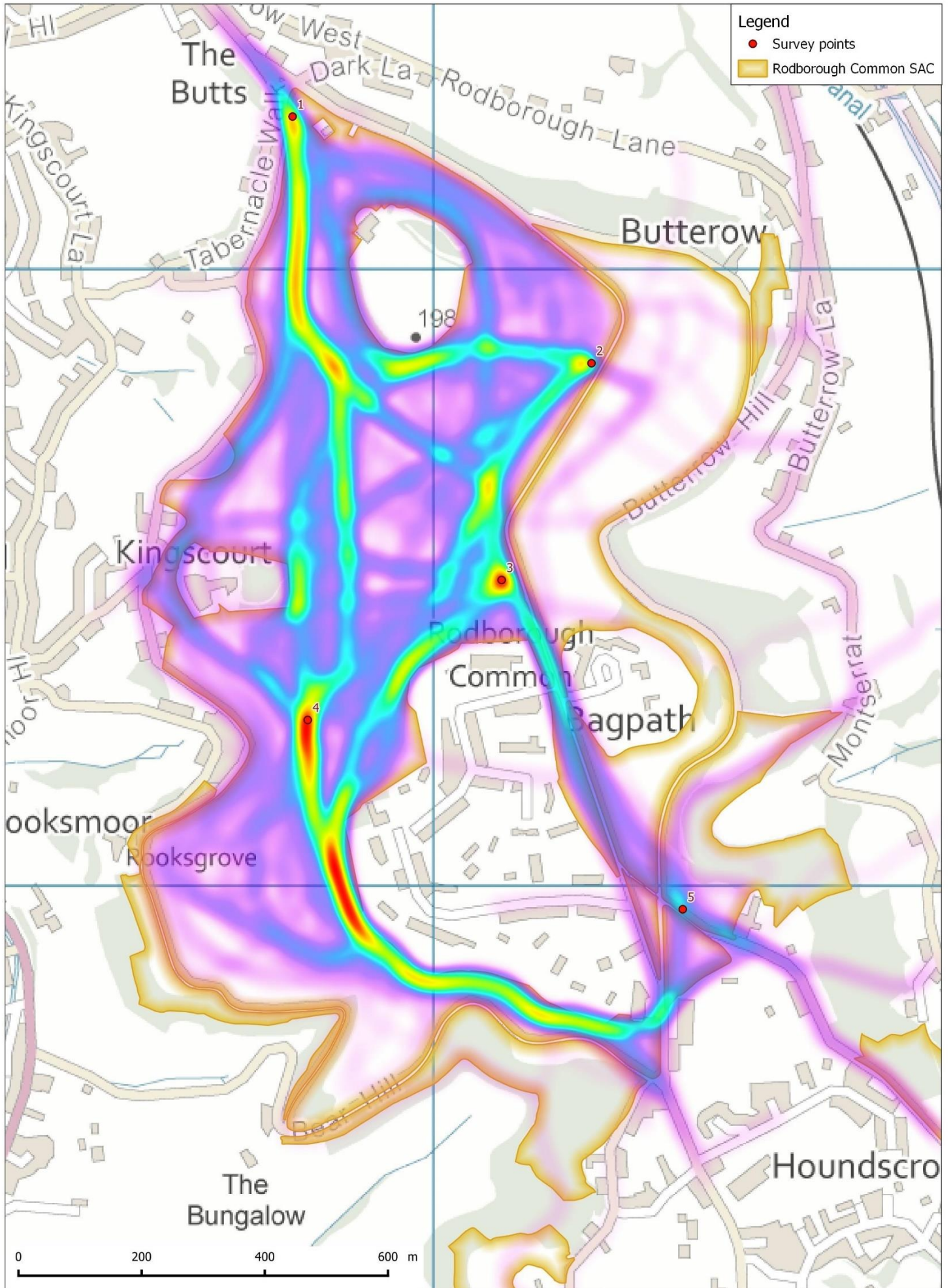
## Distribution

4.33    The raw route lines are shown in Map 6, with overlapping routes darkened to become black where many routes cross. The density of routes is better expressed as a heatmap as shown in Map 7. Greatest densities are of course associated with survey point locations, but otherwise some clear pressure points are shown. It is notable that the eastern edge of the site, the slopes of Butterow Hill, had the lowest density of routes.

**Map 6: Routes taken by interviewees at Rodborough Common. Darker colours indicate more footfall.**



Legend
- ● Survey points
- — Visitor routes
- ▨ Rodborough Common SAC

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Designated site boundaries download from the Natural England website © Natural England.

# Map 7: Routes taken by interviewees at Rodborough Common shown as a rainbow heatmap.



Legend
- Survey points
- Rodborough Common SAC

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Designated site boundaries download from the Natural England website © Natural England.
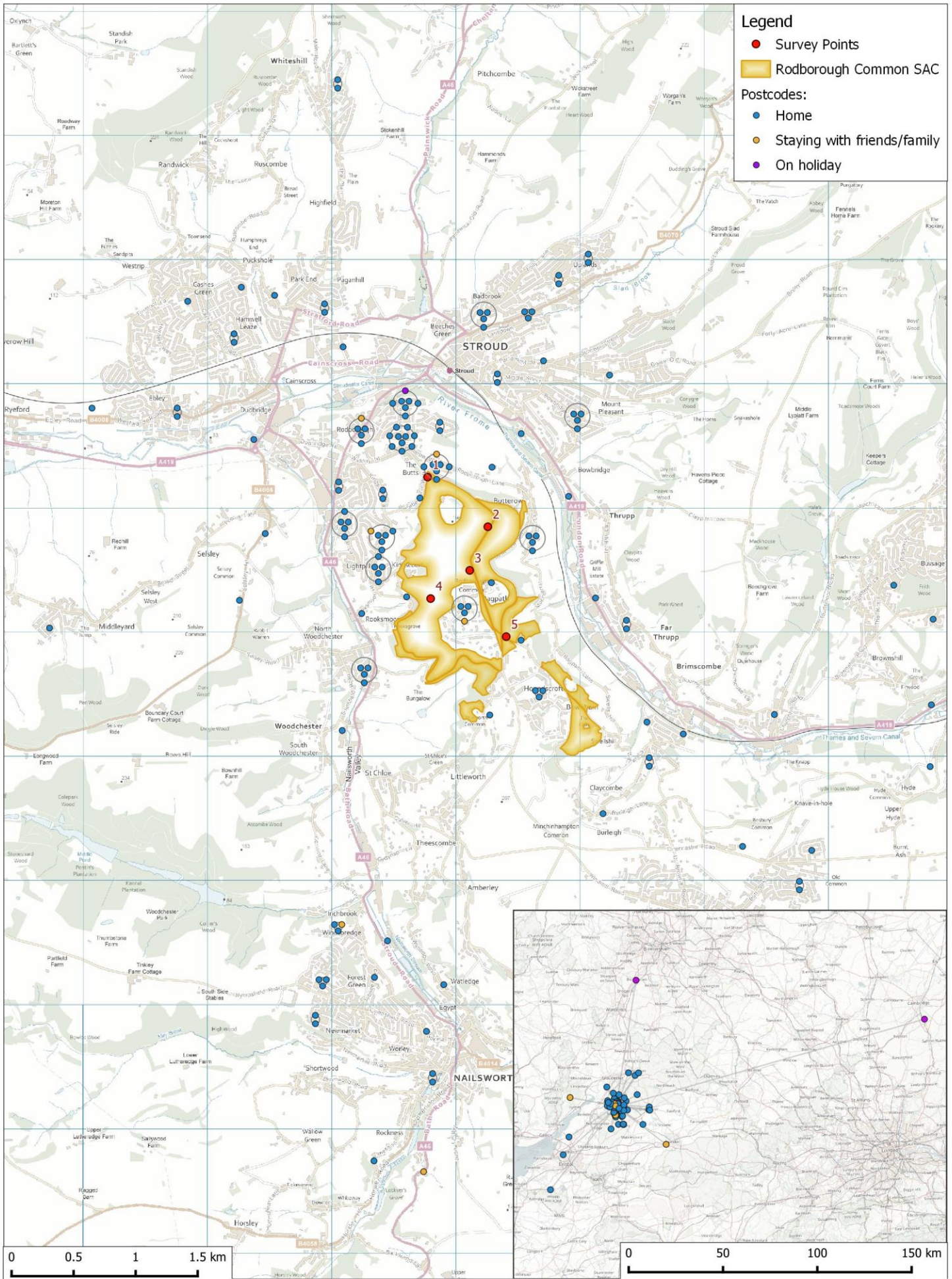
## Postcodes

4.34    Interviewees were asked to provide their full home postcode. A total of 188 interviewees out of the 195 interviewed provided a full postcode which was georeferenced (96%). Just 3 interviewees refused to give a full postcode and 4 postcodes given could not be matched to our georeferenced database.

4.35    The interviewee home postcodes were largely from Stroud District – see Table 12 and Map 8. Approximately nine in every ten interviewees were from Stroud District, 87% of interviewees, followed by Cotswold District with just 7% of interviewees and Cheltenham with 2%. The remaining interviewees came from 8 other districts. These proportions were very similar when considering only visitors who had travelled directly from home (rather than those staying with friends/family or on holiday) - Table 12.

**Table 12: Ranked local authority districts for number (and percentage) of interviewees postcodes.**

| Local authority | All interviewees | Home only |
|---|---|---|
| Stroud District | 163 (87) | 156 (88) |
| Cotswold District | 14 (7) | 14 (8) |
| Cheltenham District | 3 (2) | 3 (2) |
| South Cambridgeshire District | 1 (1) | 0 (0) |
| Bromsgrove District | 1 (1) | 0 (0) |
| South Gloucestershire | 1 (1) | 1 (1) |
| City of Bristol | 1 (1) | 1 (1) |
| Swindon | 1 (1) | 0 (0) |
| Wiltshire | 1 (1) | 1 (1) |
| Forest of Dean District | 1 (1) | 0 (0) |
| North Somerset | 1 (1) | 1 (1) |
| **Total** | **188 (100)** | **177 (100)** |

# Map 8: Distribution of interviewee postcodes shown across the UK (inset) and locally around the survey points (main map). Main map using a concentric ring offset to show overlapping postcodes (within 250m).



**Legend**
- Survey Points
- Rodborough Common SAC

Postcodes:
- Home
- Staying with friends/family
- On holiday

Contains Ordnance Survey data © Crown copyright and Database Right 2018. Contains map data © OpenStreetMap contributors. Terms: www.openstreetmap.org/copyright Designated site boundaries download from the Natural England website © Natural England.

*Linear distances*

4.36    Distances between each interviewee's home postcode and the survey point they were interviewed at were calculated as linear (Euclidean) distances. The distance values ranged from 107 m to 465 km. Overall, the average was 5.1 km (mean ± 1.1 SE) and 1.9 km (median). The distribution of distances across cumulative interviewees is shown in Figure 9.

4.37    This is influenced by the large distances from the three postcodes of interviewees who were on holiday in the area, who lived an average of 79.3 km away (mean) and half of which lived within 67.6 km (median). In comparison average values for those travelling directly from home were a mean linear distance of 3.9 km and median of 1.9 km, with three-quarters living within a 3.8 km radius – see Table 13.

**Table 13: Comparison of interviewee postcode linear distances, separated by visit type.**

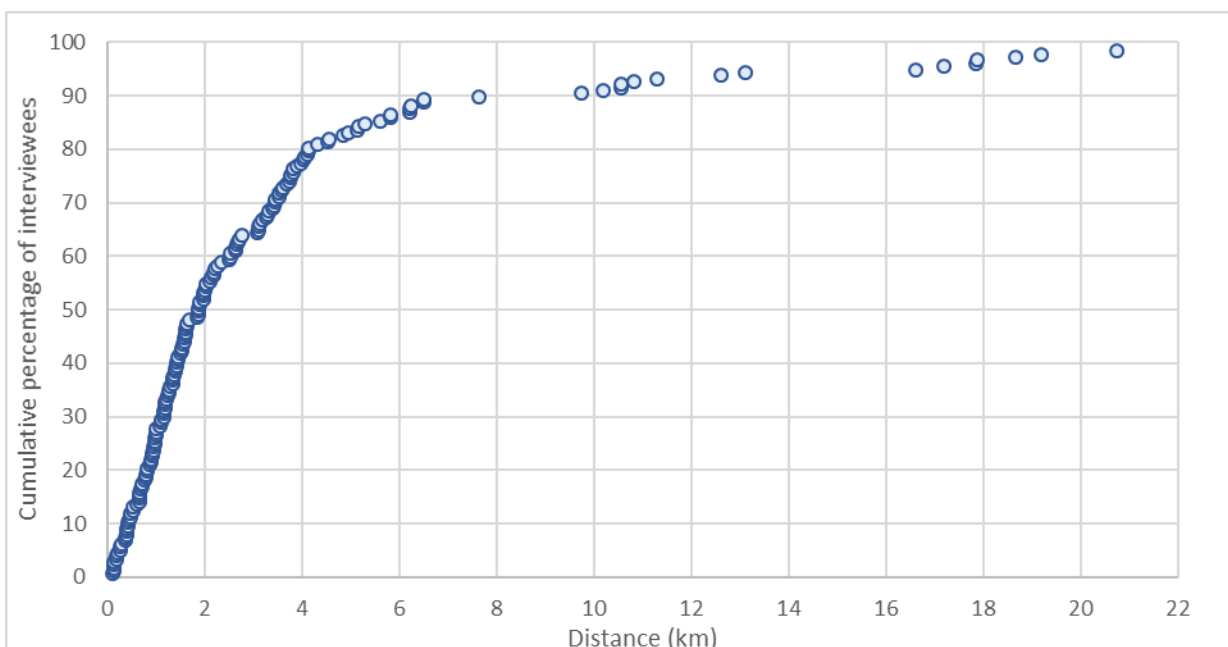| Visit type | N | Mean ± SE | Median | Range | Q3 |
|---|---|---|---|---|---|
| Home | 177 | 3.9 ± 0.5 | 1.9 | 0.11 - 56.5 | 3.8 |
| Friends/family | 8 | 8.6 ± 4.5 | 2.1 | 0.14 - 32.8 | 19.9 |
| Holiday | 3 | 79.3 ± 49.1 | 67.6 | 0.72 - 169.7 | 169.7 |
| **Total** | **188** | **5.3 ± 1.1** | **1.9** | **0.1 - 169.7** | **3.9** |



**Figure 9: Cumulative distance of interviewee's home postcode from the survey point interviewed at, shown only for those interviewees from home. Three interviewee distances beyond 22 km not shown.**

4.38    Another key factor was mode of transport, as shown in Table 14. Those visiting on foot obviously lived close to sites – typically within a 1.1 km (mean) and half within a 718 m radius (median value). In comparison, those who arrived by car typically lived further away, a mean value of 6.9 km and half within a 3.1 km radius (median). There were still many who used a car to get to site, despite living close: a quarter of those arriving by car lived within 1.5 km of the survey point (the edge of the site may have been closer still).

**Table 14: Comparison of interviewee postcode linear distances, separated by mode of transport.**

| Visit type | N | Mean ± SE | Median | Range | Q3 |
|---|---|---|---|---|---|
| Bicycle | 2 | 1.9 ± 1.3 | 1.9 | 0.6 - 3.2 | n/a |
| Car / van | 133 | 6.9 ± 1.5 | 3.1 | 0.39 - 169.7 | 5 |
| On foot | 53 | 1.1 ± 0.3 | 0.7 | 0.11 - 17.9 | 1.3 |
| **Total** | **188** | **5.3 ± 1.1** | **1.9** | **0.1 - 169.7** | **3.9** |

4.39    For the two main activity groups, dog walkers and walkers both typically lived within a similar radius, 1.6 km (median) for dog walkers, compared to 1.5 km for walkers. For the 37 daily visitors who gave a postcode, half lived within 1.0 km of the survey point interviewed at and three-quarters within 1.8km. Of those interviewees who said all their visits for the current activity took place on the common (n=26) half of them lived within, again, 1.0 km.

4.40    Table 15 shows a summary of the 75th percentile distances for interviewees, based on only those visiting directly from home. This shows how variable the distances were, particularly by visit frequency.

**Table 15: Summary of 75th percentile (Q3) distances for grouped activity and visit frequency classes. Those interviewees not visiting directly from home (n=11) are not shown. Those that visit less than once a month or on a first visit (n=2) are not shown as a separate row, but are included in the total row.**

|  | Dog walking | Walking | Other | Total |
|---|---|---|---|---|
| **Daily/Most days** | 2.2km (36%. n=66) | 1.9km (5%. n=9) | n/a (n=0) | 2.1km (41%. n=75) |
| **1 to 3 times a week** | 4.3km (23%. n=41) | 3km (7%. n=12) | 4km (12%. n=22) | 3.9km (41%. n=75) |
| **1 to 3 times a month** | 16.7km (5%. n=9) | 4.8km (4%. n=8) | 17.2km (7%. n=12) | 9.7km (16%. n=29) |
| **Total** | 3.8km (64%. n=116) | 3.5km (17%. n=31) | 5.7km (19%. n=34) | 3.8km (100%. n=181) |

4.41 The typical area or "catchment" the interviewee postcodes represent can be expressed using a simple single radius of the 75th percentile – typically around 4 km (as in Table 15). Overall, three quarters (75%) of those from home lived within a 3.8 km radius, and 85% within a 5.7 km radius.

4.42 However, the catchment may be directional, rather than a single value radius, and as such the 75th percentile catchment may be better expressed a polygon. The polygon used is a convex hull, which wraps to the individual postcodes which are included in the percentile cut offs. These convex hulls will better represent a potentially directionally unequal catchment. Map 9 shows the distribution of postcodes of interviewees who had travelled directly from home and within a 50%, 75% and 80% band and visualises as convex hull polygon around these postcodes.

4.43 In Map 9 the area for 50% of interviewees covers the SAC and most of Stroud, the village of Rodborough, and surrounding small settlements, such as Bowbridge, Thrupp, North Woodchester and Brimscombe. The area for 75% of interviewees included largely the whole of Stroud, including Cashes Green, extending to the edge of Bussage, Minchinhampton and part of Nailsworth., while the area for 85% included the whole of Stroud, as far north as Whitehill, west to Bussage, south to the whole of Nailsworth and east to Leonard Stanley and most of Stonehouse.

4.44 The 75th percentile distance (3.8 km) applied as a single buffer to the entire Rodborough Common SAC would extend as far north as Pitchcombe, east to Eastcombe and Chalford Hill, south to between Nailsworth and Downend and east to Leonard Stanley, just clipping Stonehouse.

4.45 It is worth noting that we have estimated these linear distances by measuring the distance between interviewee's home postcode and the survey point at which they were interviewed. It is also possible to examine the distances based on a radius of the whole SAC. This is easily examined with regular distance buffer bands as shown in Figure 10. This analysis would suggest three-quarters (75%) of interviewees within a 2.8 km radius and 80% within a 3.6 km radius.
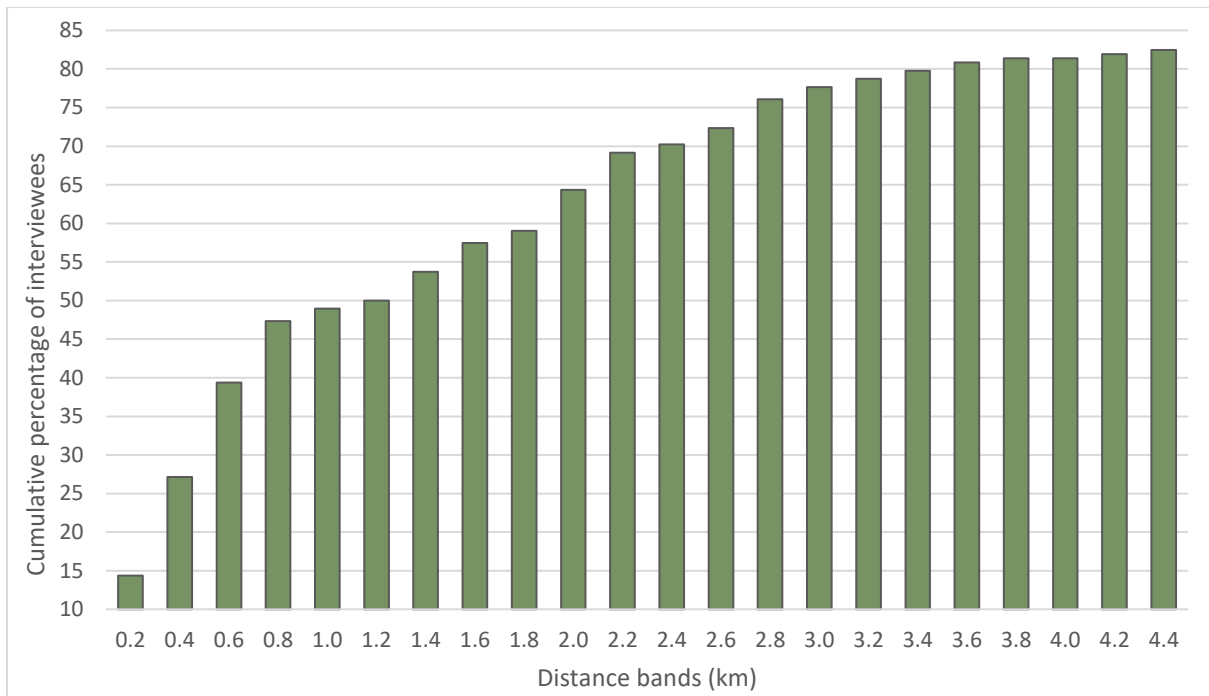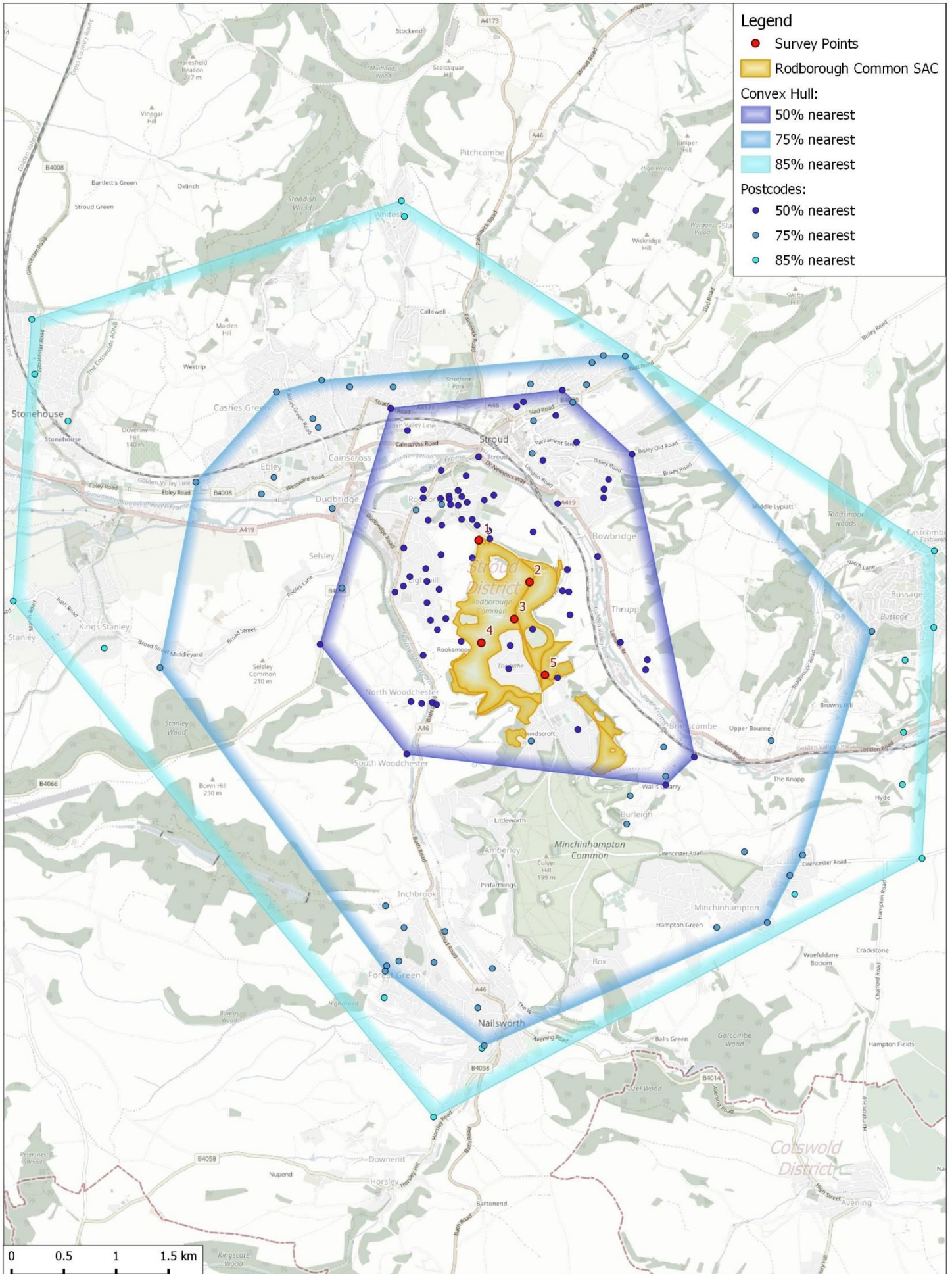
**Figure 10: Cumulative percentage of all interviewees' home postcodes within 200-metre distance band buffer of the whole Rodborough Common SAC.**

**Map 9:** Distribution of the 50%, 75% and 85% nearest interviewee home postcodes to each survey point. Minimum boundary area is shown using a convex hull.

Legend

- ● Survey Points
- ▨ Rodborough Common SAC

Convex Hull:
- 50% nearest
- 75% nearest
- 85% nearest

Postcodes:
- ● 50% nearest
- ● 75% nearest
- ● 85% nearest

# 5.    Discussion

5.1    The purpose of this survey is to provide a snapshot of the access patterns on the Rodborough Common SAC, in order to give an indication of typical visitor behaviour at the site. This report will be key evidence for effective mitigation strategies.

**Table 16: Summary metrics from the visitor survey.**

| Visitor metric | |
|---|---|
| Season and Year | Summer 2019 |
| Number of survey points | 5 |
| Total hours fieldwork | 80 |
| Mean group size (from tally) | 1.9 |
| Mean number dogs per group (from tally) | 0.8 |
| Mean people per hour passing (from tally) | 13.4 |
| Mean people per hour entering (from tally) | 5.8 |
| Mean dogs per hour entering (from tally) | 2.5 |
| Number of interviews | 195 |
| % interviewees on short day visit from home | 93 |
| % interviewees activity: dog walking | 61 |
| % interviewees activity: walking | 19 |
| % interviewees arriving by car | 70 |
| % interviewees visiting daily or more | 26 |
| Average number of visits per year for an interviewee | 180 |
| Median distance to home postcode (short visit from home only) | 1.9 |
| 75th percentile for postcode data (short visit from home only) | 3.8 |
| Median route length (km) | 2.2 |

*based on four survey points with an entering count

5.2    Results of the visitor survey (summarised in Table 16) suggest it is a relatively busy site with a reasonable level of footfall currently. Based on only the access points we surveyed, we would estimate around 0.6 person per hectare per hour using the site (1,072 people passing in tally counts/ 16 hours / 109 ha), although this increased up to 0.8 on weekends. Clearly this has not accounted for all access points and there are at least two dedicated car parks which were not surveyed, plus nearby parking from roadsides and public houses.

5.3    Visitors are on site for a relatively short time, but they visit frequently and live very locally to the site. Our data would suggest an average visitor makes

180 visits to the site per year, visiting for 60 minutes and lives within 3.9 km (75% of all interviewees, across all visitor types), most of whom are dog walking.

5.4 This 75<sup>th</sup> percentile distance of 3.9 km is an increase on the previous 2013 visitor survey of 3 km, although it is noted that distances will differ based on how this measure is derived and surveying approach, locations and timings. It is suggested that the difference between the previous 3 km radius and the 3.6 km distances could be examined in more detailed using raw postcodes and settlements covered in the catchments. The differences in distances certainly should be a point of consideration in the current mitigation strategy. Any changes to the current radius, or decision to retain the current radius used for the strategy, should be justified by detailed consideration of the datasets.

5.5 For a small site, Rodborough Common SAC is also very well served in both the number of parking locations and spaces – there are at least 77 spaces in the locations we counted, plus potential for more roadside parking in and around (e.g. near The Bear). This equates to around 0.8 spaces for every hectare, and these are generally clustered. With the additional access from visitors on foot, it is clear that footfall can be high in some areas.

5.6 The footfall on site may help maintain beneficial stress on plant communities and open bare ground conditions for invertebrates. But excessive levels of footfall by people and dog fouling on site has potential to cause high levels of trampling, soil compaction and eutrophication to the sensitive plant low nutrient communities.

5.7 When questioned with regard to potential alternative greenspaces, it is clear visitors were unsure about whether this would be favoured, and when at the site it is clear that it would be difficult to replicate the experience offered here, especially the panoramic views. Replication is further constrained by the fact that the site attracts the very local community of site users. However, many visitors are being motivated to visit Rodborough Common because of reasons relating to their dog. Many interviewees choose the site because they perceive it to be good for their dog / their dog enjoys it, and because of the ability to let the dog off lead. Greenspaces that focus on providing an experience that meets these visitors' reasons for visiting Rodborough Common could potentially make successful alternative greenspaces that are attractive enough to divert some use of Rodborough Common.

5.8    The data provided here offers a range of analysis options for predicting future visitor behaviour in relation to new residential growth coming forward in the vicinity of Rodborough Common SAC.

# Appendix 1: Questionnaire



www.footprint-ecology.co.uk

Good morning/afternoon. I am conducting a visitor survey on behalf of the Stroud District Council who are interested in gathering visitor's views about the area and recreation. Can you spare me a few minutes please?

Q1   ...

    ◯ **Are you on a day trip/short visit and have travelled directly from your home today**... *if no*

    ◯ **Are you on a short trip/short visit & staying away from home with friends or family** ... *if no*

    ◯ **Are you staying away from home, e.g. second home, mobile home or on holiday**

    ◯ If none of the above, **How would you describe your visit today?**

Further details

    [                                                                    ]

Q2   **What is the main activity you are undertaking today?** *Tick closest answer. Do not prompt. Single response only. Avoid reasons e.g "keeping fit", but stick to activities.*

    ◯ Dog walking

    ◯ Commerical dog walking

    ◯ Walking

    ◯ Jogging/ power walking / running

    ◯ Outing with family

    ◯ Cycling/Mountain Biking

    ◯ Bird/Wildlife watching

    ◯ Enjoying scenery / fresh air

    ◯ Photography

    ◯ Meeting up with friends

    ◯ Picnic

    ◯ Horse riding

    ◯ Motorbike/ Scrambler

    ◯ Off roading / 4 x 4 Green laning

    ◯ Other, please detail:

Further details

    [                                                                    ]

Q3 **Over the past year, roughly how often have you visited this site?** *Tick closest answer, single response only. Only prompt if interviewee struggles.*

◯ More than twice a day

◯ Twice a day

◯ Daily

◯ Most days (180+ visits)

◯ 1 to 3 times a week (40-180 visits)

◯ 2 to 3 times per month (15-40 visits)

◯ Once a month (6-15 visits)

◯ Less than once a month (2-5 visits)

◯ Don't know

◯ First visit

◯ Other, please detail

Further details:

_____

Q4 **How long have you spent / will you spend at this site today?** *Single response only.*

◯ Less than 30 minutes

◯ Between 30 minutes and 1 hour

◯ 1-2 hours

◯ 2-3 hours

◯ 3-4 hours

◯ 4 hours +

Further details

_____

Q5 **Do you tend to visit this site at a certain time of day?** *Tick closest answers. Multiple answers ok.*

☐ Early morning (before 7 am)

☐ Late morning (between 7 am and 10 am)

☐ Midday (between 10 am and 2 pm)

☐ Early afternoon (between 2 pm and 4 pm)

☐ Late afternoon (between 4 and 6 pm)

☐ Evening (after 6 pm)

☐ Varies / Don't know

☐ First visit

**Q6**   **Do you tend to visit this site more at a particular time of year for [***insert given activity***]?** *Multiple answers ok.*

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

**Q7**   **How long have you been visiting this site for?** *Single response only. Do not prompt.*

- ◯ Don't know
- ◯ First visit
- ◯ less than or approximately 6 months
- ◯ less than or approximately 1 year
- ◯ less than or approximately 3 years
- ◯ less than or approximately 5 years
- ◯ less than or approximately 10 years
- ◯ more than 10 years

Further details:

| |
|---|
| |

**Q8**   **How did you get here today?** *if necessary prompt with:* **What form of transport did you use?** *Single response only.*

- ◯ Car / van
- ◯ On foot
- ◯ Bicycle
- ◯ Other, please detail

Further details:

| |
|---|
| |

**Q9**   **Would you have used any other means of transport had it been avaliable, such as better bus or cycle routes?**

- ◯ Yes, public transport
- ◯ Yes, bicycle
- ◯ Yes, walked
- ◯ Yes, other
- ◯ No
- ◯ Not sure / Dont know

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

Q10 **Is / was your route today the normal length when you visit here for [***insert given activity***]?** *Tick closest answer, do not prompt. Single response only.*

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

Q11 **What, if anything, influenced your choice of route here today?** *Tick closest answers, do not prompt. Multiple responses ok.*

- ☐ Weather
- ☐ Daylight
- ☐ Time
- ☐ Other users (avoiding crowds etc)
- ☐ Group members (eg kids, less able)
- ☐ Muddy tracks / paths
- ☐ Followed a marked trail
- ☐ Previous knowledge of area / experience
- ☐ Activity undertaken (eg presence of dog)
- ☐ Interpretation / leaflets / promotion
- ☐ Viewpoint / Feature
- ☐ Other, please detail

Further details:

| |
|---|
| |

Q12 **Why did you choose to visit this specific location today, rather than another local site?** *Tick all responses given by visitor in the 'other' column. Do not prompt, tick closest answers. Then ask* **Which single reason would you say had the most influence over your choice of site to visit today?** *Tick only one main reason. Use text box for answers that cannot be categorised and for further information.*

| | Other | Main |
|---|---|---|
| Don't know / others in party chose | ○ | ○ |
| Close to home | ○ | ○ |
| No need to use car | ○ | ○ |
| Quick & easy travel route | ○ | ○ |

| | | |
|---|:---:|:---:|
| Good / easy parking | ◯ | ◯ |
| Particular facilities | ◯ | ◯ |
| Refreshments / cafe / pub | ◯ | ◯ |
| Choice of routes | ◯ | ◯ |
| Feels safe here | ◯ | ◯ |
| Quiet, with no traffic noise | ◯ | ◯ |
| Not many people | ◯ | ◯ |
| Scenery / variety of views | ◯ | ◯ |
| Rural feel / wild landscape | ◯ | ◯ |
| Particular wildlife interest (including trees) | ◯ | ◯ |
| Habit / familiarity | ◯ | ◯ |
| Good for dog /  dog enjoys it | ◯ | ◯ |
| Ability to let dog off lead | ◯ | ◯ |
| Closest place to take dog | ◯ | ◯ |
| Closest place to let dog safely off lead | ◯ | ◯ |
| Appropriate place for activity | ◯ | ◯ |
| Suitability of area in given weather conditions | ◯ | ◯ |
| Presence of water | ◯ | ◯ |
| Openess / wide open spaces | ◯ | ◯ |
| Variety of habitats | ◯ | ◯ |
| For a change / variety | ◯ | ◯ |
| Other, please detail | ◯ | ◯ |

Further details:

| |
|---|
| |

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

Q13 **What proportion of your weekly visits for [***given activity***] take place at this site compared to other sites.  Can you give a rough percentage?** *Do not prompt*

⚪ All take place here

⚪ 75% or more

⚪ 50-74%

⚪ 25-49%

⚪ less than 25%

⚪ Not sure/don't know/first visit

**Please could you tell us the name of up to 3 other locations you visit most often for [***given activity***]?  Please list them in order, starting with the one you visit most.**

Q14 **Name of Site 1** *(Most visited)*

Q15 Name of Site 2

Q16 Name of Site 3

Q17 **Thinking about other green spaces, are there any changes to additional green spaces around the site which encourage you to use them more?** *Do not give options. Do not prompt.*

◯ More / better parking

◯ New / better cafe/ visitor facilities

◯ Improved accessibilty (pushchair / disabled access, better gates etc.)

◯ Better path condition

◯ Improved footpaths

◯ Improved cyclepaths

◯ More / better toillets

◯ More litter bins

◯ More dog poo bins

◯ Better managed / mantained sites

◯ Better signposting / interpretation / maps

◯ Better advertised / promoted

◯ Dont know/ Not sure

◯ No /  None / Wouldnt visit these more regardless

Further details:

<br>

Q18 **If a new country park was created near here for [**insert given activity**], do you think you would be likely to use it?**

◯ Not sure/ Dont know / Cant tell

◯ Yes

◯ Maybe

◯ No

Q19  **What features would you like to see at such a new country park in order for it to draw** [given activity]**?** Do not prompt. Tick any options as relevant.

- ☐ cafe
- ☐ visitor centre
- ☐ toilets
- ☐ suffHcent parking spaces
- ☐ free parking
- ☐ extensive / long routes
- ☐ good path quality
- ☐ dedicated cycling routes
- ☐ bike hire
- ☐ dedicated horse riding routes
- ☐ off-lead areas for dogs
- ☐ play facilities for children
- ☐ good views / scenery
- ☐ well maintaned space
- ☐ safe feel
- ☐ woodland
- ☐ open water
- ☐ none
- ☐ other (give details)

Q20  Further details:

Q21  **Are there any changes you would like to see here with regards to how this area is managed for recreation and people?** *Do not give options*

Q22  **Do you have any further comments or general feedback about your visit and access to this area?**

Q23 **And what is your full home postcode?** *This is an important piece of information, please make every effort to record correctly.*

[                                                    ]

Q24 *If visitor is unable or refuses to give postcode:* **What is the name of the town or village where you live?**

[                                                    ]

Q25 *If visitor is on holiday ask:* **Which town / village are you staying in?** *[Routed from above Q]*

[                                                    ]

Q26 **Finally, was your dog off lead at any point on your visits?** *(no need to ask if can clearly see the dog is off lead!)*

◯ Yes
◯ No
◯ Not sure / Dont know

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

Q27 **TO BE COMPLETED AFTER INTERVIEW FINISHED.**

| | |
|---|---|
| Surveyor initials | [        ] |
| Survey location code | [        ] |
| Map Reference Number | [        ] |
| Gender of respondent | [        ] |
| Total number in interviewed group | [        ] |
| Total males | [        ] |
| Total females | [        ] |
| Total minors (under 18) | [        ] |
| Total number of dogs | [        ] |
| Number of dogs seen off lead | [        ] |

Q28   **Surveyor comments**. *Note anything that may be relevant to the survey, including any changes to the survey entry that are necessary, eg typos/mistakes/changes to answers/additional information.*

Further details: